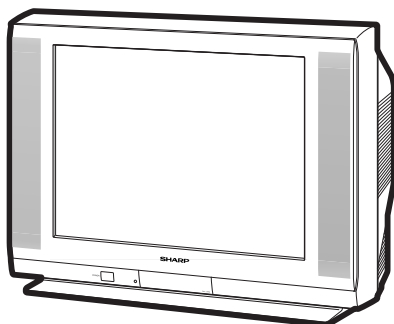


SHARP SERVICE MANUAL

S14O227F640//



COLOR TELEVISION

Chassis No. GB-3U

27F640 27F641

MODELS

In the interests of user-safety (Required by safety regulations in some countries) the set should be restored to its original condition and only parts identical to those specified should be used.

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ELECTRICAL SPECIFICATIONS

POWER INPUT 120V AC, 60 Hz
 POWER RATING 130W
 PICTURE SIZE 2,193.5 cm² (339sq inch)
 CONVERGENCE Magnetic
 SWEEP DEFLECTION Magnetic
 FOCUS Hi-Bi-Potential Electrostatic
 INTERMEDIATE FREQUENCIES
 Picture IF Carrier Frequency 45.75 MHz
 Sound IF Carrier Frequency 41.25 MHz
 Color Sub-Carrier Frequency 42.17 MHz
 (Nominal)

AUDIO POWER

OUTPUT RATING 5.0W + 5.0W (at 10% distortion and
 Dual CH Operate)

SPEAKER

SIZE 12 x 6 cm oval (2 pcs.)
 VOICE COIL IMPEDANCE 8 ohm at 400 Hz

ANTENNA INPUT IMPEDANCE

VHF/UHF 75 ohm Unbalanced

TUNING RANGES

VHF-Channels 2 thru 13
 UHF-Channels 14 thru 69
 CATV Channels 1 thru 125

(EIA, Channel Plan U.S.A.)

Specifications are subject to change without prior notice.

SHARP CORPORATION

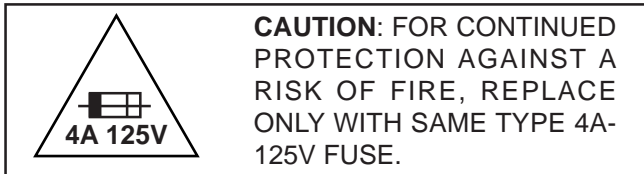
This document has been published to be used for after sales service only.
 The contents are subject to change without notice.

IMPORTANT SERVICE SAFETY PRECAUTION

- Service work should be performed only by qualified service technicians who are thoroughly familiar with all safety checks and the servicing guidelines which follow:

WARNING

1. For continued safety, no modification of any circuit should be attempted.
2. Disconnect AC power before servicing.
3. Semiconductor heat sinks are potential shock hazards when the chassis is operating.
4. The chassis in this receiver has two ground systems which are separated by insulating material. The non-isolated (hot) ground system is for the B+ voltage regulator circuit. The isolated ground system is for the low B+ DC voltages and the secondary circuit of the high voltage transformer.
To prevent electrical shock use an isolation transformer between the line cord and power receptacle, when servicing this chassis.



SERVICING OF HIGH VOLTAGE SYSTEM AND PICTURE TUBE

When servicing the high voltage system, remove the static charge by connecting a 10k ohm resistor in series with an insulated wire (such as a test probe) between the picture tube ground and the anode lead. (AC line cord should be disconnected from AC outlet.)

1. Picture tube in this receiver employs integral implosion protection.
2. Replace with tube of the same type number for continued safety.
3. Do not lift picture tube by the neck.
4. Handle the picture tube only when wearing shatterproof goggles and after discharging the high voltage anode completely.

X-RADIATION AND HIGH VOLTAGE LIMITS

1. Be sure all service personnel are aware of the procedures and instructions covering X-radiation. The only potential source of X-ray in current solid state TV receivers is the picture tube. However, the picture tube does not emit measurable X-Ray radiation, if the high voltage is as specified in the "High Voltage Check" instructions.
It is only when high voltage is excessive that X-radiation is capable of penetrating the shell of the picture tube including the lead in the glass material. The important precaution is to keep the high voltage below the maximum level specified.
2. It is essential that servicemen have available at all times an accurate high voltage meter. The calibration of this meter should be checked periodically.
3. High voltage should always be kept at the rated value –no higher. Operation at higher voltages may cause a failure of the picture tube or high voltage circuitry and;also, under certain conditions, may produce radiation in exceeding of desirable levels.
4. When the high voltage regulator is operating properly there is no possibility of an X-radiation problem. Every time a color chassis is serviced, the brightness should be tested while monitoring the high voltage with a meter to be certain that the high voltage does not exceed the specified value and that it is regulating correctly.
5. Do not use a picture tube other than that specified or make unrecommended circuit modifications to the high voltage circuitry.
6. When trouble shooting and taking test measurements on a receiver with excessive high voltage, avoid being unnecessarily close to the receiver.
Do not operate the receiver longer than is necessary to locate the cause of excessive voltage.

IMPORTANT SERVICE SAFETY PRECAUTION

(Continued)

BEFORE RETURNING THE RECEIVER

(Fire & Shock Hazard)

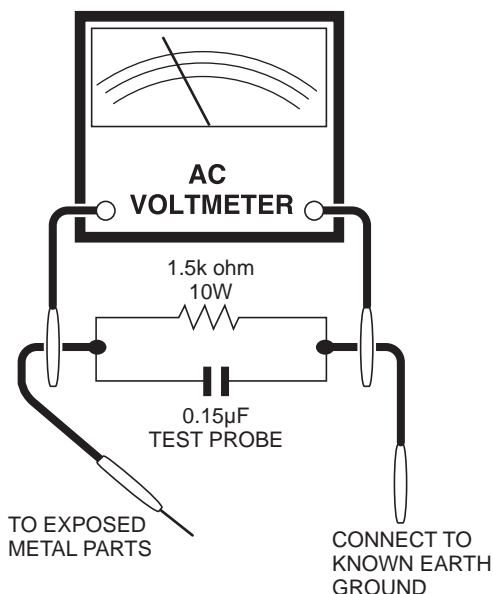
Before returning the receiver to the user, perform the following safety checks.

1. Inspect all lead dress to make certain that leads are not pinched or that hardware is not lodged between the chassis and other metal parts in the receiver.
2. Inspect all protective devices such as non-metallic control knobs, insulating materials, cabinet backs, adjustment and compartment covers or shields, isolation resistor-capacity networks, mechanical insulators, etc.
3. To be sure that no shock hazard exists, check for leakage current in the following manner.
 - Plug the AC cord directly into a 120 volt AC outlet, (Do not use an isolation transformer for this test).
 - Using two clip leads, connect a 1.5k ohm, 10 watt resistor paralleled by a 0.15 μ F capacitor in series with all exposed metal cabinet parts and a known earth ground, such as electrical conduit or electrical ground connected to earth ground.
 - Use an AC voltmeter having with 5000 ohm per volt, or higher, sensitivity to measure the AC voltage drop across the resistor.

- Connect the resistor connection to all exposed metal parts having a return to the chassis (antenna, metal cabinet, screw heads, knobs and control shafts, escutcheon, etc.) and measure the AC voltage drop across the resistor.

All checks must be repeated with the AC line cord plug connection reversed. (If necessary, a non-polarized adapter plug must be used only for the purpose of completing these check.)

Any current measured must not exceed 0.5 milliamp. Any measurements not within the limits outlined above indicate of a potential shock hazard and corrective action must be taken before returning the instrument to the customer.



SAFETY NOTICE

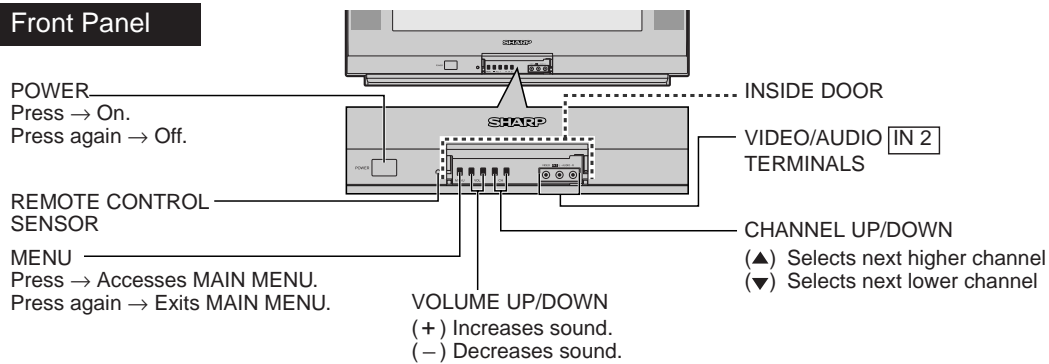
Many electrical and mechanical parts in television receivers have special safety-related characteristics. These characteristics are often not evident from visual inspection, nor can protection afforded by them be necessarily increased by using replacement components rated for higher voltage, wattage, etc.

Replacement parts which have these special safety characteristics are identified in this manual; electrical components having such features are identified by " \triangle " and shaded areas in the Replacement Parts Lists and Schematic Diagrams.

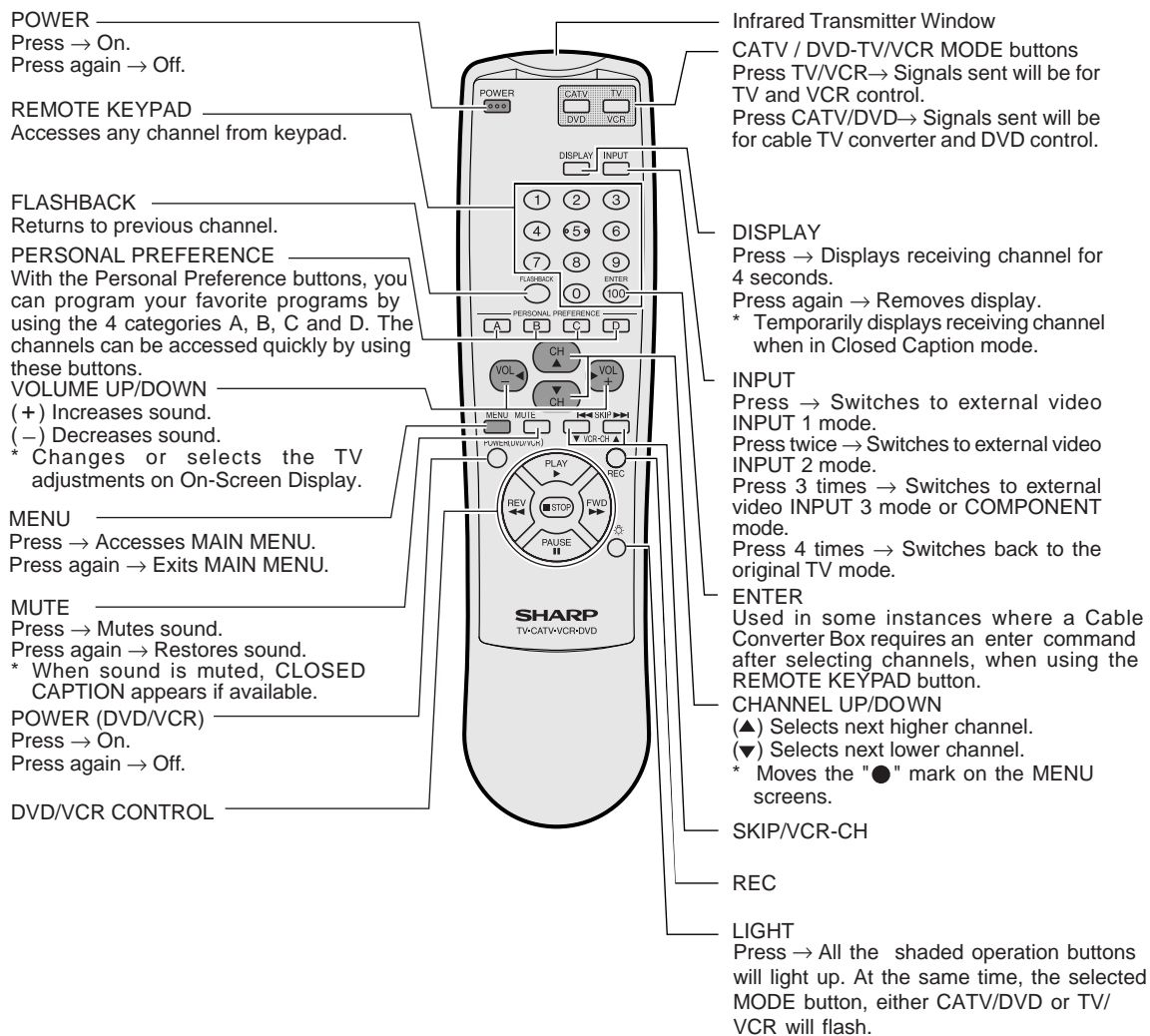
For continued protection, replacement parts must be identical to those used in the original circuit. The use of substitute replacement parts which do not have the same safety characteristics as the factory recommended replacement parts shown in this service manual, may create shock, fire, X-radiation or other hazards.

LOCATION OF USER'S CONTROL

Front Panel



Basic Remote Control Functions



Note

- * The LIGHT button on the Remote Control glows in the dark. To use the glow-in-the-dark display on the remote control, place it under a fluorescent light or other lighting.
- * When the LIGHT button is pressed, the shaded buttons above will light up.
- * Using the LIGHT button frequently will shorten the battery life.
- * Alkaline batteries are recommended for frequent use of the LIGHT button.
- * The phosphorescent material contains no radioactive or toxic material, so it is safe to use.
- * The degree of illumination will vary depending on the strength of lighting used.
- * The degree of illumination will decrease with time and depending on the temperature.
- * The time needed to charge the phosphorescent display will vary depending on the surrounding lighting.
- * Sunlight and fluorescent lighting are the most effective when charging the display.

INSTALLATION AND SERVICE INSTRUCTIONS

- Note:** (1) When performing any adjustments to resistor controls and transformers use non-metallic screwdrivers or TV alignment tools.
(2) Before performing adjustments, the TV set must be on at least 15 minutes.

CIRCUIT PROTECTION

The receiver is protected by a 4.0A fuse (F701), mounted on PWB-A, wired into one side of the AC line input.

X-RADIATION PROTECTOR CIRCUIT TEST

After service has been performed on the horizontal deflection system, high voltage system, B+ system, test the X-Radiation protection circuit to ascertain proper operation as follows:

1. Apply 120V AC using a variac transformer for accurate input voltage.
2. Allow for warm up and adjust all customer controls for normal picture and sound.
3. Receive a good local channel.
4. Connect a digital voltmeter to TP653 (P651 Pin3) and make sure that the voltmeter reads $13.85 \pm 0.6V$ DC.
5. Apply external 17.3V DC at TP653 by using an external DC supply, TV must be shut off.
6. To reset the protector, unplug the AC cord (about 1min.) and plug the AC cord power on. Now make sure that normal picture appears on the screen.
7. If the operation of the horizontal oscillator does not stop in step 5, the circuit must be repaired before the set is returned to the customer.

HIGH VOLTAGE CHECK

High voltage is not adjustable but must be checked to verify that the receiver is operating within safe and efficient design limitations as specified checks should be as follows:

1. Connect an accurate high voltage meter between ground and anode of picture tube.
2. Operate receiver for at least 15 minutes at 120V AC line voltage, with a strong air signal or a properly tuned in test signal.
3. Enter the service mode and select the service adjustment "V11" and Bus data "01" (Y-mute on, CRT Cut Off).
4. The voltage should be below 31.5kV (at zero beam). If a correct reading cannot be obtained, check circuitry for malfunctioning components. After the voltage test, make Y-mute off to the normal mode.

For adjustments of this model, the bus data is converted to various analog signals by the D/A converter circuit.

Note: There are still a few analog adjustments in this series such as focus and master screen voltage. Follow the steps below whenever the service adjustment is required. See "Table-B" to determine, if service adjustments are required.

1. Service mode

Before putting unit into the service mode, check that customer adjustments are in the normal mode. Use the reset function in the video adjustment menu to ensure customer controls are in their proper (reset) position.

2. Service number selection

Once in the service mode, press the Ch-up or Ch-down button on the remote controller or at the set. The service adjustment number will vary in increments of one, from "V01" to "M05". Select the item you wish to adjust.

3. Data number selection

Press the Vol-up or Vol-down button to adjust the data number.

To enter the service mode and exit service mode.

To enter the service mode manually just press and hold the Vol-down and Ch-up buttons at the same time, plug the AC cord into a wall socket.

Now the TV set is switched on and enters the service mode.

To exit the service mode, turn the television off by pressing the power button.

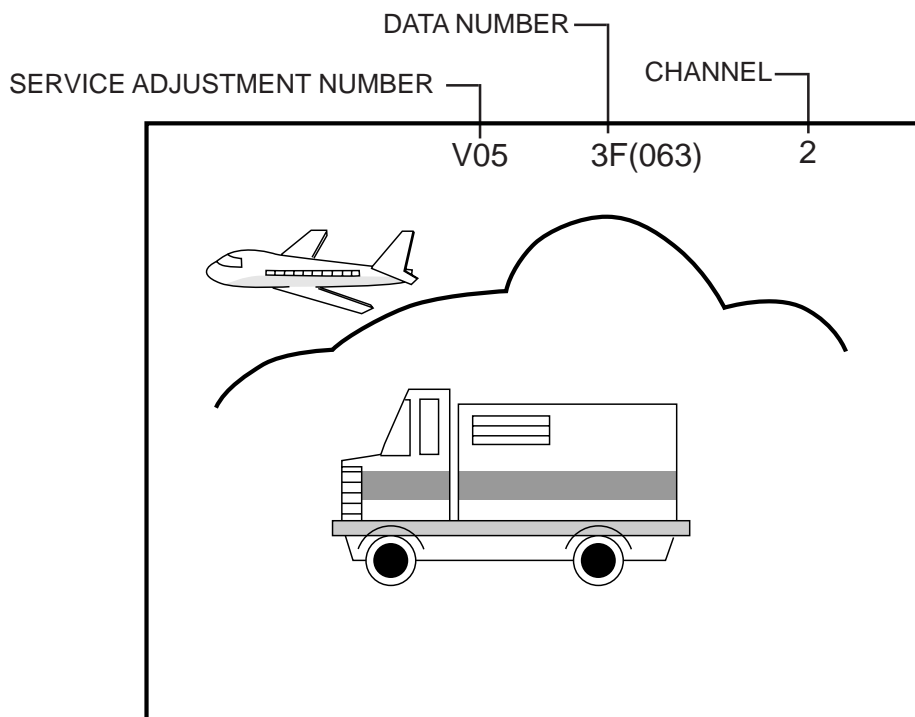


Figure A.

A. VCJ IC ADJUSTMENT

SERVICE NUMBER	ADJUSTMENT ITEM	DATA		NOTES	FIXED VALUE (HEX)
		RANGE	INITIAL VALUE		
V01	PICTURE	0-15 (00h-0Fh)	8 (08h)		
V02	TINT	0-127 (00h-7Fh)	66 (42h)		
V03	COLOR	0-127 (00h-7Fh)	56 (38h)		
V05	BRIGHT	0-127 (00h-7Fh)	64 (40h)		
V06	R CUT-OFF	64-255 (40h-FFh)	64 (40h)		
V07	G CUT-OFF	64-255 (40h-FFh)	64 (40h)		
V08	B CUT-OFF	64-255 (40h-FFh)	64 (40h)		
V09	G/R DRIVE	0-127 (00h-7Fh)	64 (40h)		
V10	B DRIVE	0-127 (00h-7Fh)	64 (40h)		
V11	Y-MUTE/V-STOP	0-2	0 (00h)	Y-Mute / Horizontal "—"	
V12	SHARP	0-63 (00h-3Fh)	50 (32h)		32
V13	DC RESTORATION	0-3 (00h-03h)	2 (02h)		02
V14	BLACK STRETCH	0-3 (00h-03h)	2 (02h)		02
V15	ABL START POINT	0-3 (00h-03h)	3 (03h)		03
V16	ABL GAIN	0-3 (00h-03h)	2 (02h)		02
V17	γ POINT	0-3 (00h-03h)	0 (00h)		00
V19	ENERGY SAVE	0-63 (00h-3Fh)	63 (3Fh)	Offset	3F
V24	LOW-G	0-255 (00h-FFh)	12 (0Ch)	Color Temp.	F4
V25	LOW-B	0-255 (00h-FFh)	241 (F1h)	Color Temp.	E6
V26	ML-G	0-255 (00h-FFh)	0 (00h)	Color Temp.	FD
V27	ML-B	0-255 (00h-FFh)	247 (F7h)	Color Temp.	F8
V28	HIGH-G	0-255 (00h-FFh)	2 (02h)	Color Temp.	01
V29	HIGH-B	0-255 (00h-FFh)	8 (08h)	Color Temp.	06
V30	WPL	0-1	1 (01h)		01
V31	RGB CONTRAST	0-63 (00h-3Fh)	59 (3Bh)		3B
V34	VSM GAIN	0-3 (00h-03h)	1 (01h)		01
V36	BPF/TOF-INPUT	0-1	0 (00h)	External Input	00
V37	CORING	0-1	0 (00h)		00
V38	VSM PHASE	0-1	0 (00h)		00
V39	COLOR γ	0-1	0 (00h)		00
V40	SHARP-INPUT	0-63 (00h-3Fh)	44 (2Ch)	External Input	2C
V41	TINT-INPUT	0-127 (00h-7Fh)	62 (3Eh)	External Input	3E
V42	PICTURE-COMPONENT	0-15 (00h-0Fh)	6 (06h)	Component Input	
V43	TINT-COMPONENT	0-127 (00h-7Fh)	62 (3Eh)	Component Input	3E
V44	COLOR-COMPONENT	0-127 (00h-7Fh)	72 (48h)	Component Input	48
V45	BRIGHT-COMPONENT	0-127 (00h-7Fh)	84 (54h)	Component Input	
V46	R CUT OFF-COMPONENT	64-255 (00h-FFh)	64 (40h)	Component Input	
V47	G CUT OFF-COMPONENT	64-255 (00h-FFh)	64 (40h)	Component Input	
V48	B CUT OFF-COMPONENT	64-255 (00h-FFh)	64 (40h)	Component Input	
V49	G/R DRIVE-COMPONENT	0-127 (00h-7Fh)	64 (40h)	Component Input	
V50	B DRIVE-COMPONENT	0-127 (00h-7Fh)	64 (40h)	Component Input	
V51	SHARP-COMPONENT	0-63 (00h-3Fh)	44 (2Ch)	Component Input	2C
V52	TINT-S	0-127 (00h-7Fh)	62 (3Eh)	Component Input	3E
V53	C-TRAP	0-1 (00h-01h)	0 (00h)		00
V59	AUTO FRESH	0-1 (00h-01h)	0 (00h)		00
V60	SHARP P F	0-1 (00h-01h)	1 (01h)		01
V61	CD MATRIX	0-3 (00h-03h)	2 (02h)		02
V62	B-Y ATT	0-1 (00h-01h)	0 (00h)		00
V63	R-Y ATT	0-1 (00h-01h)	0 (00h)		00
V64	CD MATRIX COMPONENT	0-3 (00h-03h)	0 (00h)	Component Input	00
V65	B-Y ATT-COMPONENT	0-1 (00h-01h)	0 (00h)	Component Input	00
V66	R-Y ATT-COMPONENT	0-1 (00h-01h)	0 (00h)	Component Input	00
V67	BUZZ	0-1 (00h-01h)	1 (01h)		01
V68	RGB ABCL	0-1 (00h-01h)	1 (01h)		01
V69	PICTURE-VCOMP	0-100 (00h-64h)	47 (2Fh)	16:9 Format (Offset)	2F
V70	COLOR-VCOMP	0-100 (00h-64h)	50 (32h)	16:9 Format (Offset)	32
V71	BRIGHT-VCOMP	0-100 (00h-64h)	51 (33h)	16:9 Format (Offset)	33
R01	RF-AGC	0-63 (00h-3Fh)	36 (24h)		
R03	RF-AGC REF	0-255 (00h-FFh)	170 (AAh)	Standard value for the self-adjustment	AA
D01	V POSITION	0-7 (00h-07h)	0 (00h)		00
D02	H POSITION	0-31 (00h-1Fh)	15 (0Fh)		
D03	V SIZE	0-127 (00h-7Fh)	89 (59h)		
D04	H SIZE	0-63 (00h-3Fh)	36 (24h)		
D05	V-LINEARITY	0-15 (00h-0Fh)	8 (08h)		
D06	V-S CORRECTION	0-15 (00h-0Fh)	12 (0Ch)		0C
D07	EW PARABOLA	0-63 (00h-3Fh)	43 (2Bh)		
D08	EW TRAPEZIUM	0-63 (00h-3Fh)	36 (24h)		
D10	AFC GAIN	0-3 (00h-03h)	2 (02h)		02
D11	V EHT	0-7 (00h-07h)	6 (06h)		06
D12	H EHT	0-7 (00h-07h)	6 (06h)		06
D13	EW CORNER	0-31 (00h-1Fh)	8(08h)		08

SERVICE NUMBER	ADJUSTMENT ITEM	DATA		NOTES	FIXED VALUE (HEX)
		RANGE	INITIAL VALUE		
D14	EW CORNER BOTTOM	19-81 (13h-51h)	50 (32h)	Offset toward D13.	32
D15	NOISE DET LEVEL	0-3 (00h-03h)	0 (00h)		00
D18	V CENTERING	0-63 (00-3Fh)	36 (24h)	16:9 Format	00
D19	V-AGC	0-1 (00h-01h)	0 (00h)		00
D20	V POSITION-VCOMP	0-7 (00h-07h)	0 (00h)	16:9 Format	00
D21	H POSITION-VCOMP	0-31 (00h-1Fh)	15 (0Fh)	16:9 Format	
D22	V SIZE-VCOMP	0-127 (00h-7Fh)	52 (34h)	16:9 Format	
D23	H SIZE-VCOMP	0-63 (00h-3Fh)	36 (24h)	16:9 Format	
D24	V-LINEARITY-VCOMP	0-15 (00h-0Fh)	8 (08h)	16:9 Format	
D25	V-C CORRECTION-VCOMP	0-15 (00h-0Fh)	10 (0Ah)	16:9 Format	0A
D26	EW PARABOLA-VCOMP	0-63 (00h-3Fh)	22 (16h)	16:9 Format	
D27	EW TRAPEZIUM-VCOMP	0-63 (00h-3Fh)	35 (23h)	16:9 Format	
D28	V EHT-VCOMP	0-7 (00h-07h)	6 (06h)	16:9 Format	06
D29	H EHT-VCOMP	0-7 (00h-07h)	6 (06h)	16:9 Format	06
D30	EW CORNER-VCOMP	0-31 (00h-1Fh)	12 (0Ch)	16:9 Format	0C
D31	EW CORNER BOTTOM-VCOMP	19-81 (13h-51h)	50 (32h)	Offset toward D30.	32
D32	V BLK UPPER-VCOMP	0-3 (00h-03h)	2 (02h)	16:9 Format	02
D33	V BLK LOWER-VCOMP	0-3 (00h-03h)	2 (02h)	16:9 Format	02
D34	V CENTERING-VCOMP	0-63 (00h-3Fh)	36 (24h)	16:9 Format	

B. SPECIAL SETTING

SERVICE NUMBER	ADJUSTMENT ITEM	DATA		NOTES	FIXED VALUE (HEX)
		RANGE	INITIAL VALUE		
EX1	FAO VOLUME	0-50 (00h-32h)	36 (24h)	Interrupt period adjustment.	24
EX2	CC-POSITION	0-127 (00h-7Fh)	27 (1Bh)		1C
EX3	INT	0-255 (00h-FFh)	122 (7Ah)		7A
EX4	A-ATT	0-127 (00h-7Fh)	90 (5Ah)		5A
EX5	TUNER data	0-3 (00h-03h)	0 (00h)		00
EX6	Think chip-Slice LEVEL	0-255 (00h-FFh)	54 (36h)		12
EX7	RLY DELAY TIME	0-255 (00h-FFh)	0 (00h)		00
EX8	ADG ON TIME	0-255 (00h-FFh)	10 (0Ah)		0A

C. OPTION SETTING

SERVICE NUMBER	ADJUSTMENT ITEM	DATA		NOTES	FIXED VALUE (HEX)
		RANGE	INITIAL VALUE		
OP1	OPTION1	0-255 (00h-FFh)	245 (F5h)		F5
OP2	OPTION2	0-255 (00h-FFh)	188 (BCh)		3C
OP3	OPTION3	0-255 (00h-FFh)	15 (0Fh)		8F

D. SOUND ADJUSTMENT

SERVICE NUMBER	ADJUSTMENT ITEM	DATA		NOTES	FIXED VALUE (HEX)
		RANGE	INITIAL VALUE		
M01	INPUT LEVEL	0-15 (00h-0Fh)	7 (07h)		
M02	MTS VCO	0-63 (00h-3Fh)	38 (26h)		
M03	FILTER	0-63 (00h-3Fh)	36 (24h)		
M04	WIDEBAND	0-63 (00h-3Fh)	28 (1Ch)		
M05	SPECTRAL	0-63 (00h-3Fh)	23 (17h)		

Holding down both the VOL-up and CH-up buttons on the TV set at service mode for more than 2 seconds will automatically write the above initial values into IC2101.

PART REPLACED	ADJUSTMENT		NOTES
	NECESSARY	UNNECESSARY	
IC2001		X	Data is stored in IC2101.
IC201	X		The adjustment is needed to compensate for characteristics of parts including IC201 and MTS level (M01).
IC2101	X		Holding down both the VOL-up and CH-up buttons on the TV set in the service mode for more than 2 seconds will automatically write the above initial values into IC2101 Then perform a complete adjustment.
CRT	X		Adjust items related to picture tube only.
IC3001	X		Adjust items related to MTS only (M01~M05).

SERVICE ADJUSTMENT

RF AGC Adjustment

1. Receive a good local channel.
2. Enter the service mode and select the service adjustment "R01".
3. Set the data value to point where no noise or beat appears.
4. Select another channel to confirm that no noise or beat appears.

Note 1 : You will have to come out of the service mode to select another channel.

Note 2 : Setting the data to "00" will produce a black raster.

Screen Adjustment

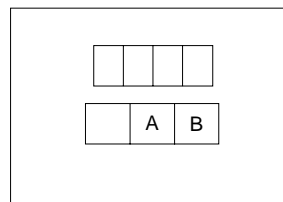
1. Receive a good local channel.
2. Enter the service mode and select the service adjustment "V03" and set the data value to "00" to set the color level to minimum. (Record original data code under adjustment "V03" before changing) You may skip this step, if you selected a B/W picture or monoscope pattern.
3. Select the service adjustment "V11" and adjust the data value to "01", this turn off the luminance signal (Y-mute).
4. Adjust the master screen control until the raster darkens to the point where raster is barely seen.
5. Adjust the service adjustments "V06" red, "V07" green and "V08" blue to obtain a good grey scale with normal whites at low brightness level.
6. Select the service adjustment "V11" and reset data to "00". Select the service adjustment "V03" and reset data to obtain normal color level.
7. For component input, the data value of "V46" red, "V47" green and "V48" blue is adjusted to follow the data value of "V06", "V07" and "V08" respectively.
8. Reset the master screen control to obtain normal brightness range.

White Balance Adjustment

1. Receive a good local channel.
2. Enter the service mode and select the service adjustment "V03" and set to "00" (minimum color)(Record original data code under adjustment "V03" before changing). "V03" does not have to be adjusted, if you selected a B/W picture or monoscope pattern.
3. Alternately adjust the service adjustment data of "V09" and "V10" until a good grey scale with normal whites is obtained. (RF Input)
4. For component input, the data value of "V49" and "V50" is adjusted to follow the data value of "V09" and "V10" respectively.
5. Select the service adjustment "V03" and reset data to obtain normal color level.

Sub-picture and Sub-Bright Adjustments

1. Receive the window pattern signal.
 - RF INPUT (TU51)
2. Get into service adjustment data "V01" and "V05" and set the luminance as shown in figure "A" and "B" as below respectively.
 - COMPONENT INPUT
3. Get in service adjustment data "V42" and "V45" and set the luminance as shown in figure "A" and "B" as below respectively.

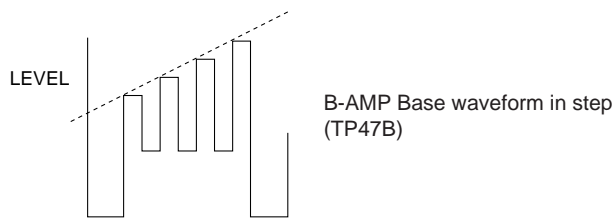


LUMINESCENCE CONFIRMATION

- A: $120 \pm 10 \text{cd/m}^2$
- B: $1.5 \pm 0.5 \text{cd/m}^2$

Sub-Tint Adjustment

1. Receive the half color bar signal.
- RF INPUT (TU51)
2. Get into Y-Mute by R/C, or by setting the "V11" bus data to "01".
3. Vary the "V02" bus data until the waveform becomes as stated below.



Sub-Color Adjustment

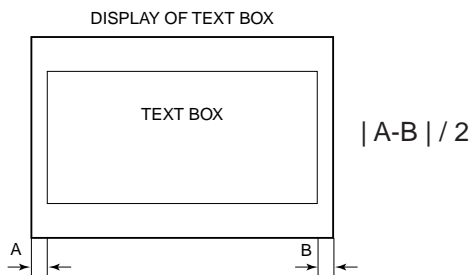
1. Receive a good local channel.
2. Make sure the customer color control is set to center position .
- RF INPUT (TU51)
3. Enter the service mode and select service adjustment "V03".
4. Adjust "V03" data value to obtain a normal color level.

Focus Adjustment

1. Receive a good local channel.
2. Adjust the FOCUS VR of the flyback transformer to make the image as fine as possible.

C. C Display Position Adjustment

1. Receive the lion head pattern signal.
2. Select "EX2" to display the text box.
3. Adjust the "EX2" bus data to let the text box displayed in the center.



SPEC INSPECTION: |A-B| / 2 ≤ 5mm

Vertical-Size and Linearity Adjustments

1. Receive a good local channel.
(SCREEN FORMAT 4:3)
2. Enter the service mode and select the service adjustment "D03" for V-size.
3. Adjust the "D03" bus data to get the proper V-size.
4. For V-linearity adjustment, select data bus "D05" and adjust to get the proper vertical linearity.
(SCREEN FORMAT 16:9)
5. Input data of "D22" to mines 38 step from "D03" data.
(V-SIZE)
6. Input data of "D24" same as "D05" data. (V-LIN)

Note: Aging for 10 min before adjustment. After the adjustment of V-center and V-size, re-adjustment for this V-line.

Vertical Phase Adjustment

(SCREEN FORMAT 4:3)

1. Enter the service mode and input data of "00h" on "D01".
2. Adjust "D18" data value so that picture is centered.
(SCREEN FORMAT 16:9)
3. Input data of "00h" on "D20".
4. Input data of "D34" same as "D18" data.

Horizontal Position Adjustment

(SCREEN FORMAT 4:3)

1. Receive a good local channel.
2. Enter the service mode and select the service adjustment "D02".
3. Adjust "D02" data value so that picture is centered.
(SCREEN FORMAT 16:9)
4. Input data of "D21" same as "D02" data.

Horizontal-Size Adjustment

(SCREEN FORMAT 4:3)

1. Receive a good local channel.
2. Enter the service mode and select the service adjustment "D04" for H-size.
3. Adjust the "D04" bus data to get the proper H-size.
(SCREEN FORMAT 16:9)
4. Input data of "D23" same as "D04" data.

EW-Parabola

(SCREEN FORMAT 4:3)

1. Receive a good local channel.
2. Enter the service mode and select the service adjustment "D07" for EW parabola.
3. Adjust the "D07" bus data to get the proper vertical straight line for both left and right side.
(SCREEN FORMAT 16:9)
4. Input data of "D26" to mines 21 step from "D07" data.

EW-Trapezium

(SCREEN FORMAT 4:3)

1. Receive a good local channel.
2. Enter the service mode and select the service adjustment "D08" for EW-Trapezium.
3. Adjust the "D08" bus data to get the best position display.
(SCREEN FORMAT 16:9)
4. Input data of "D27" same as "D08" data.

■ MTS ADJUSTMENT

MTS Level Adjustment

1. Set the sound volume above 1.
Monoral signal: 400Hz, 100% modulation
2. Confirm "EX4" data is "5Ah".
3. Vary the "M01" bus data until the voltage to pin (39) of IC3001 to become the value as stated below.

SETTING VOLTAGE

ADJ spec : 490 ± 10 mVrms

CHK spec: 490 ± 20 mVrms

Separation Adjustment

1. Input "SIGNAL 1" and vary the "M04" bus data to get the minimum AC voltage to pin (39) of IC3001.
2. Input "SIGNAL 2" and vary the "M05" bus data to get the minimum AC voltage to pin (39) of IC3001.
SIGNAL 1: 300Hz, 30% modulation, Lch only, NR-ON
SIGNAL 2: 3kHz, 30% modulation, Lch only, NR-ON

Note: SIGNAL 1 Adj. for wideband

SIGNAL 2 Adj. for spectral

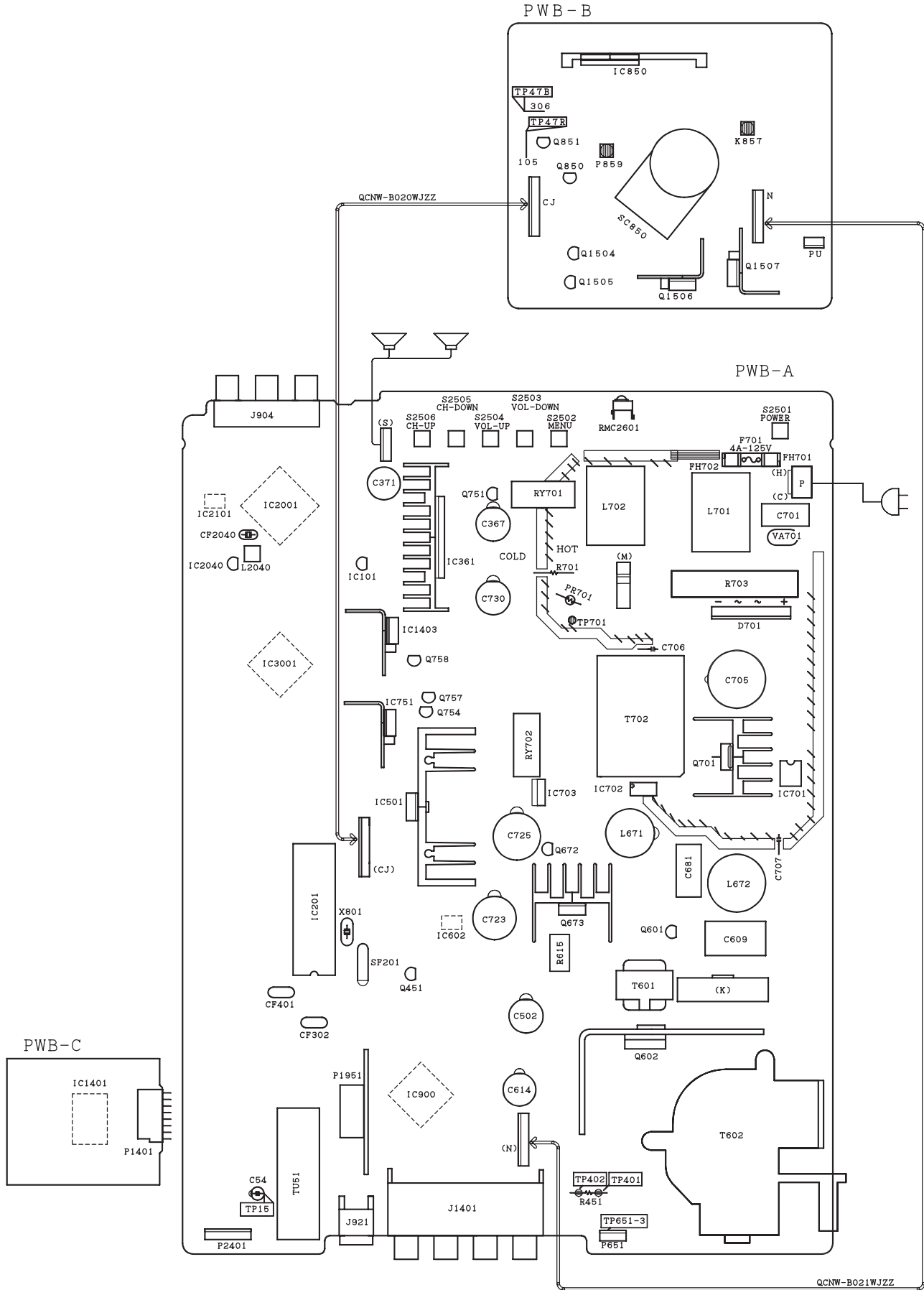
Check the output of the speaker at the maximum volume as stated below.

Confirmation spec:

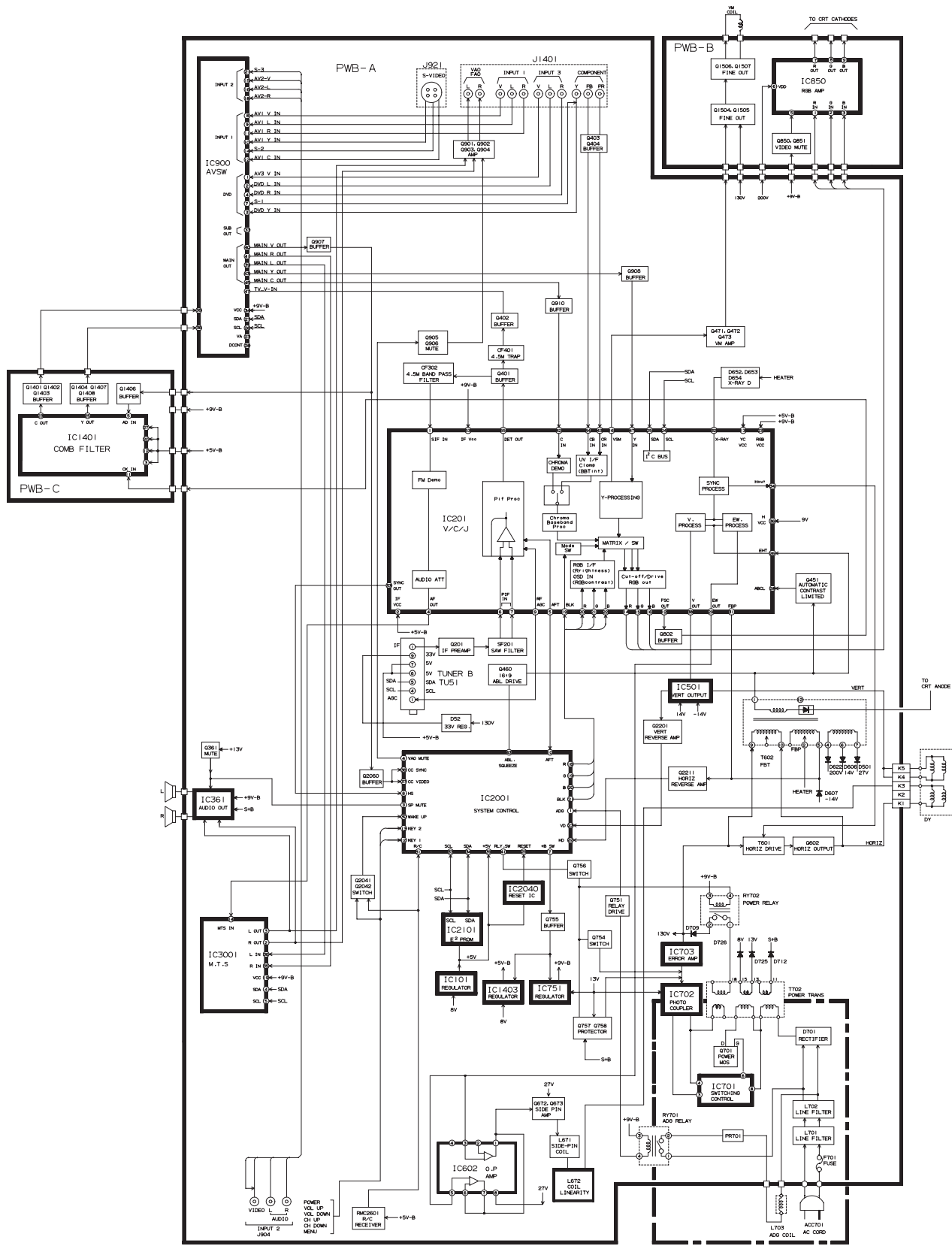
ADJ spec: above 25 dB

CHK spec: above 20 dB

CHASSIS LAYOUT



BLOCK DIAGRAM



DESCRIPTION OF SCHEMATIC DIAGRAM

NOTES:

1. The unit of resistance "ohm" is omitted.
($K=kW=1000W$, $M=MW$)
2. All resistors are 1/16 watt, unless otherwise noted.
3. All capacitors are μF , unless otherwise noted.
($P=pF=\mu\mu F$)
4. (G) indicates $\pm 2\%$ tolerance may be used.
5. \ddagger indicates line isolated ground.

VOLTAGE MEASUREMENT CONDITIONS:

1. All DC voltages are measured with DVM connected between points indicated and chassis ground, line voltage set at 120V AC and all controls set for normal picture unless otherwise indicated.
2. All voltages measured with 1000 μV B & W or Color signal.

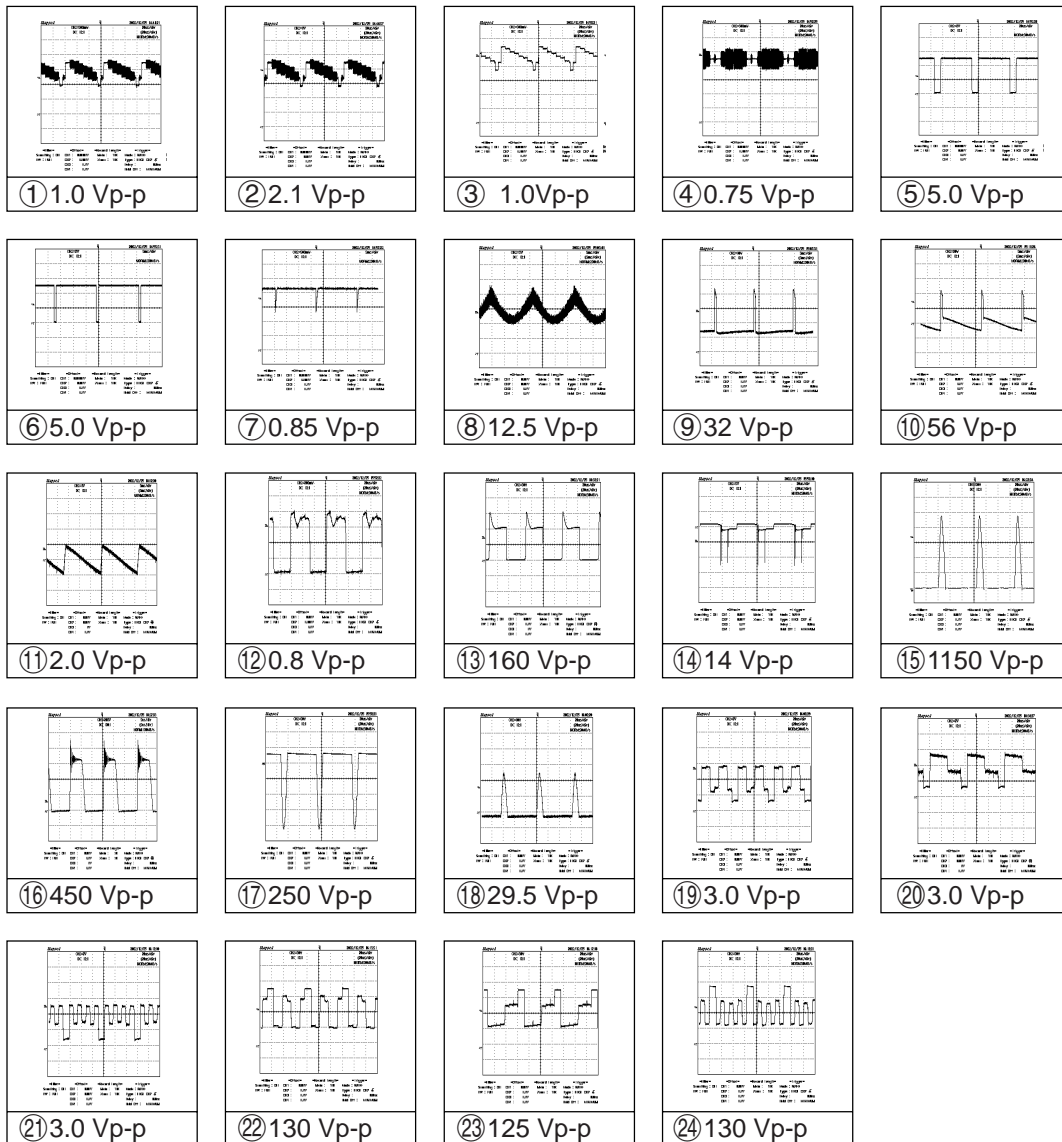
WAVEFORM MEASUREMENT CONDITIONS:

1. Photographs taken on a standard gated color bar signal, the tint setting adjusted for proper color. The wave shapes at the red, green and blue cathodes of the picture tube depend on the tint, color level and picture control.
2. \odot indicates waveform check points (See chart, waveforms are measured from point indicated to chassis ground.)

\triangle AND SHADED () COMPONENTS = SAFETY RELATED PARTS.
 \blacktriangle MARK= X-RAY RELATED PARTS.

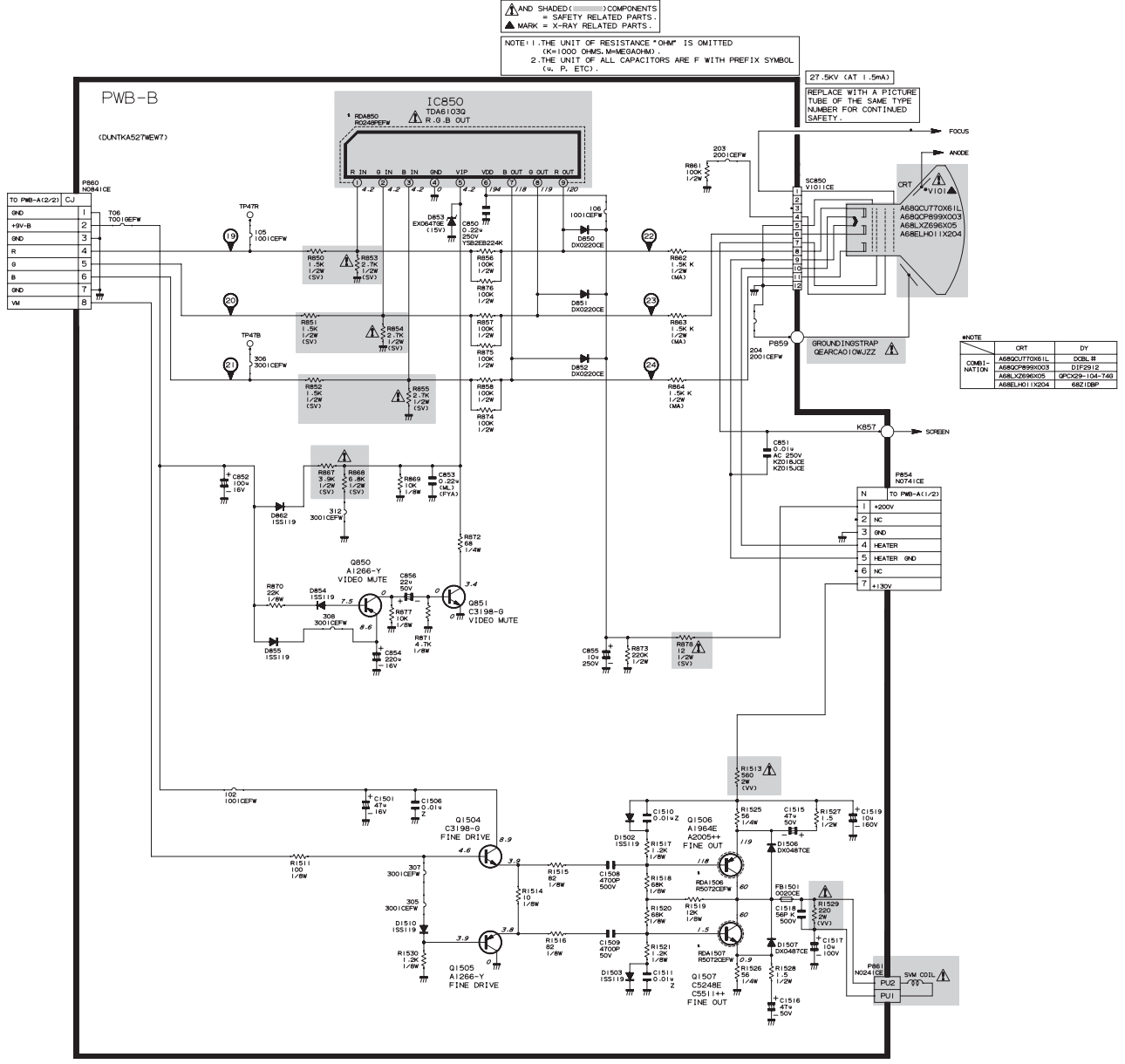
This circuit diagram is a standard one, printed circuits may be subject to change for product improvement without prior notice.

WAVEFORMS



SCHEMATIC DIAGRAM: CRT Unit

J
I
H
G
F
E
D
C
B
A



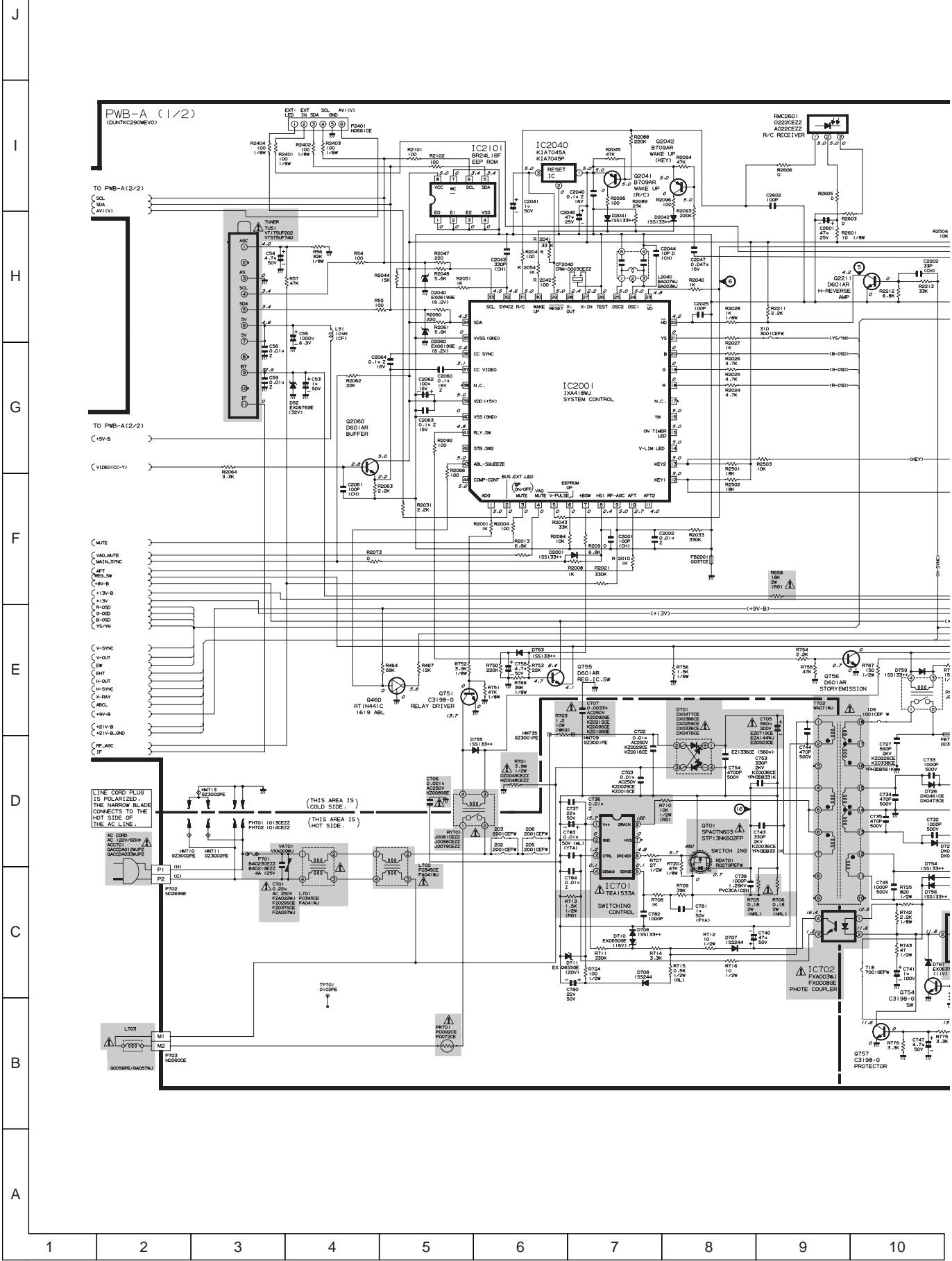
#NOTE	CRT	DY
COMBINATION	A6800770X6 IL	DCBL B
	A6800799X003	D172H12
	A68LX208X003	QC003P-104-140
	A68ELH011X204	68Z10P

TO PWB-A(12/2)	CU
END	1
+9V-B	2
END	3
R	4
G	5
B	6
END	7
W	8

TO PWB-A(1-2)	N
1	200V
2	NC
3	END
4	HEATER
5	HEATER GND
6	NC
7	+130V

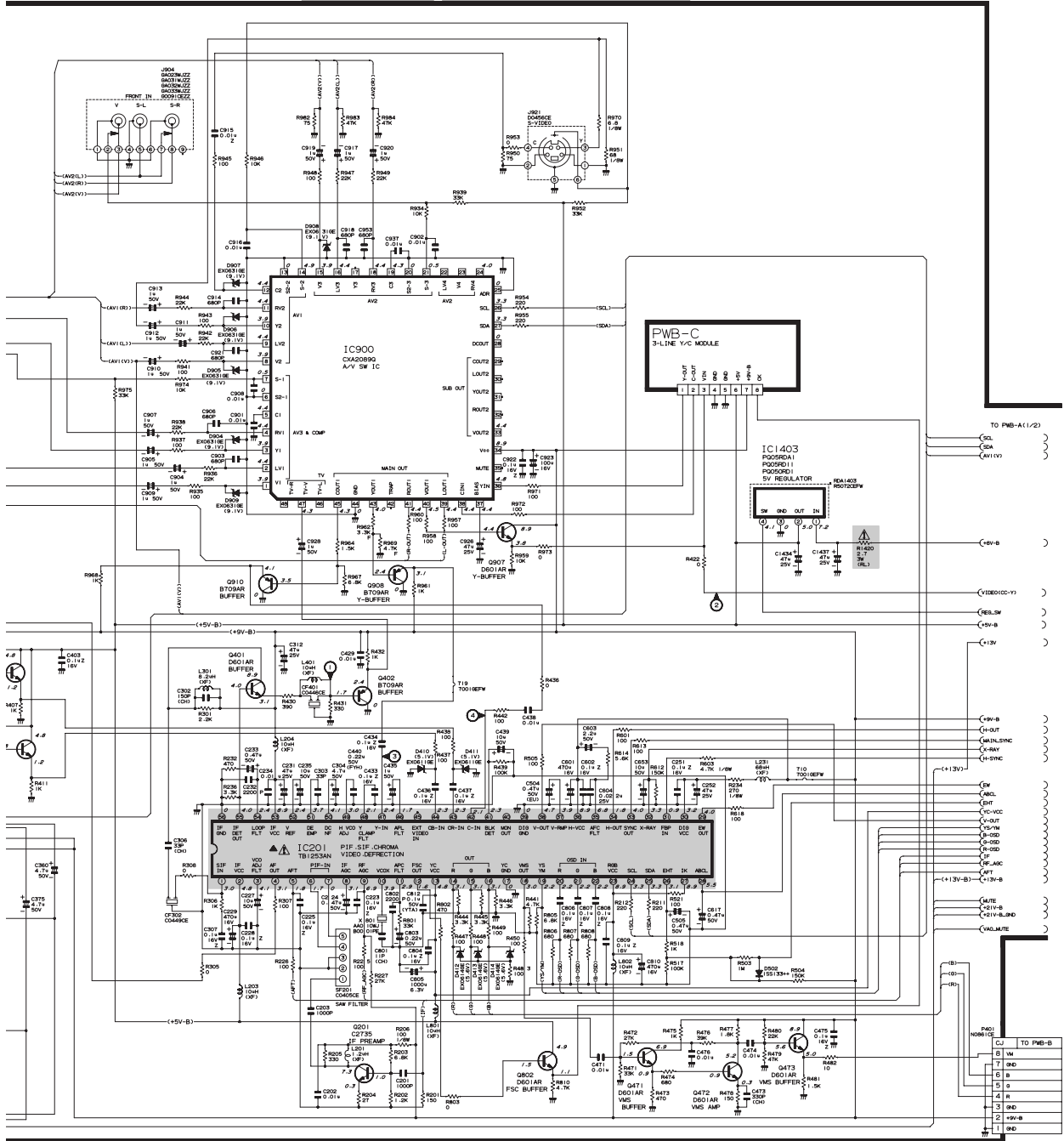
1 2 3 4 5 6 7 8 9 10

SCHEMATIC DIAGRAM: MAIN-1 Unit



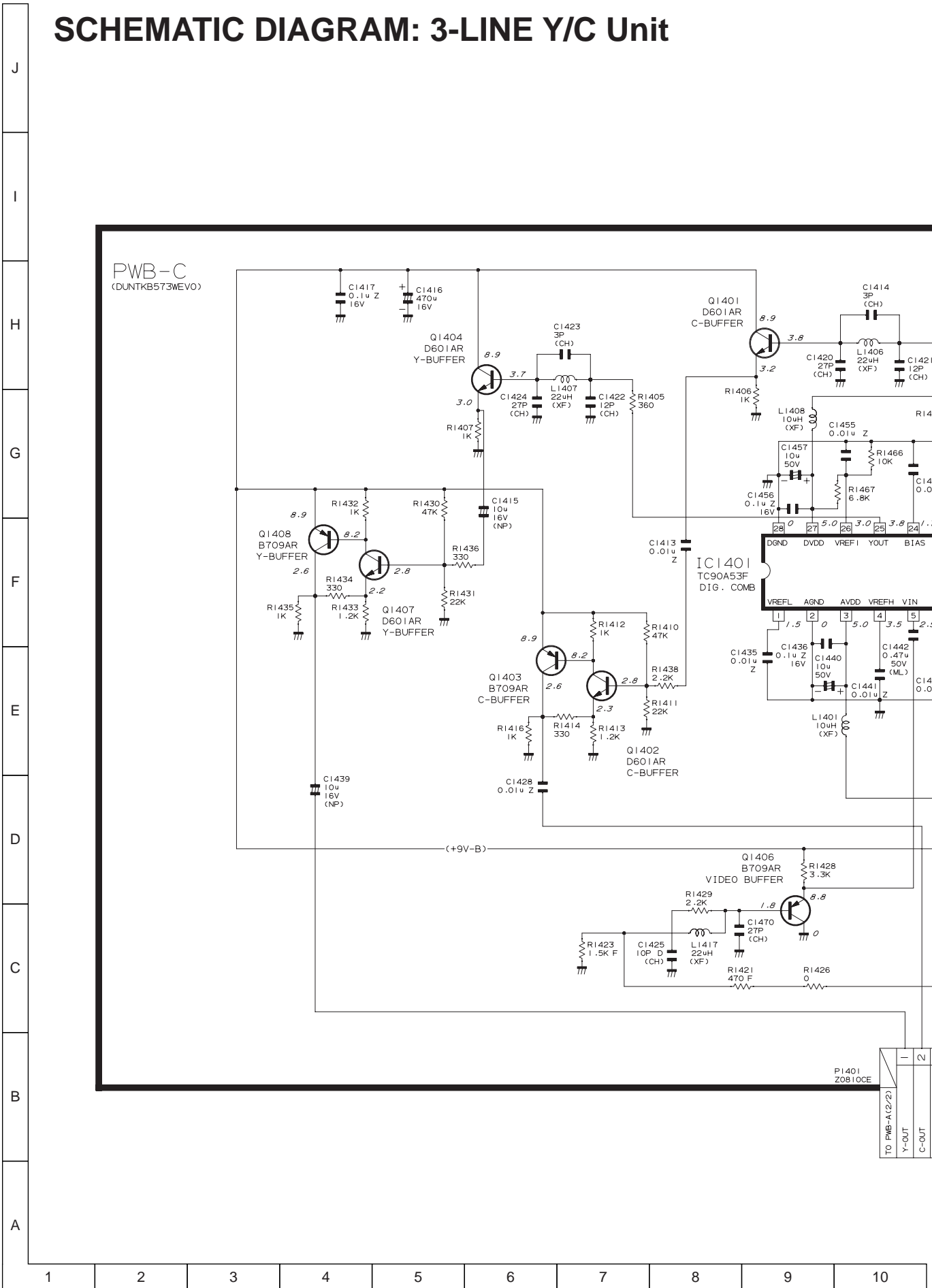
▲ AND SHADED () COMPONENTS = SAFETY RELATED PARTS.
▲ MARK = X-RAY RELATED PARTS.

NOTE: 1. THE UNIT OF RESISTANCE "OHM" IS OMITTED.
(K=1000 OHMS, M=10000 OHMS)
2. ALL RESISTORS ARE 1/16 WATT UNLESS OTHERWISE NOTED.
3. UNIT OF ALL CAPACITORS ARE F WITH PREFIX SYMBOL.
(E.G., P, ETC.)

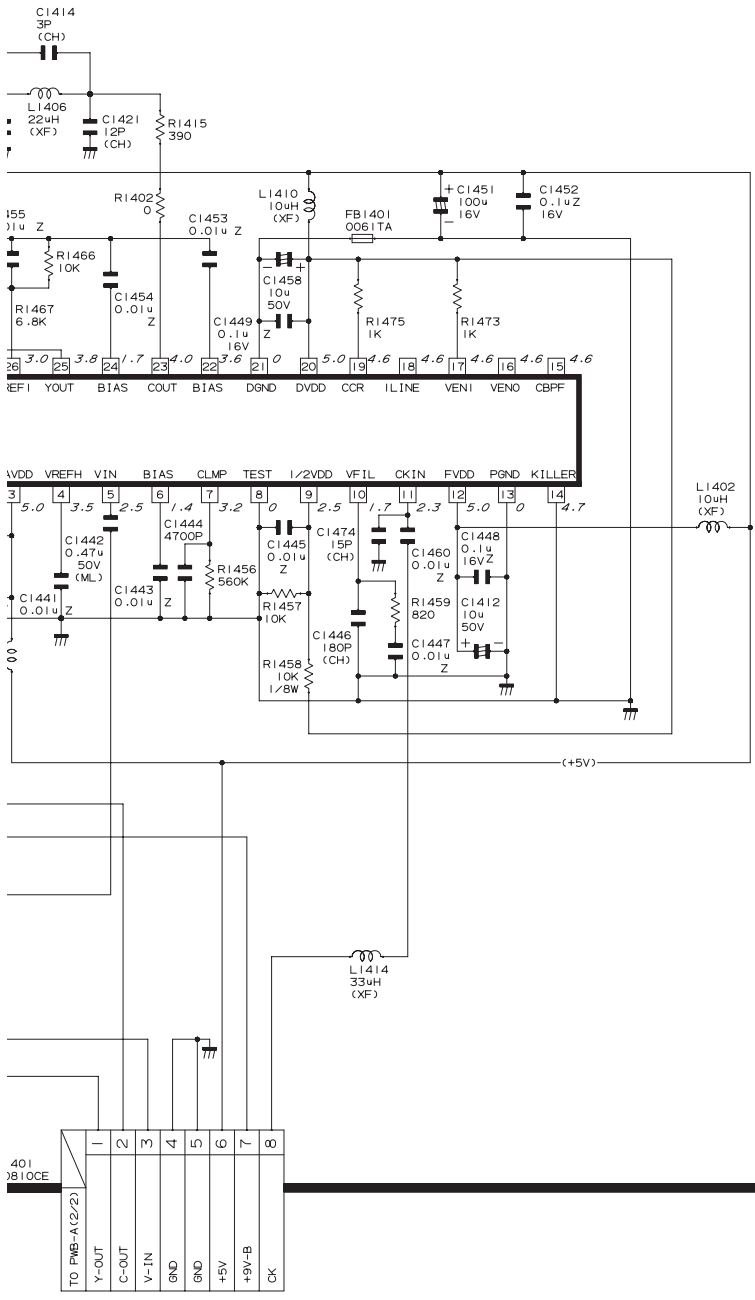


10	11	12	13	14	15	16	17	18	19
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SCHEMATIC DIAGRAM: 3-LINE Y/C Unit



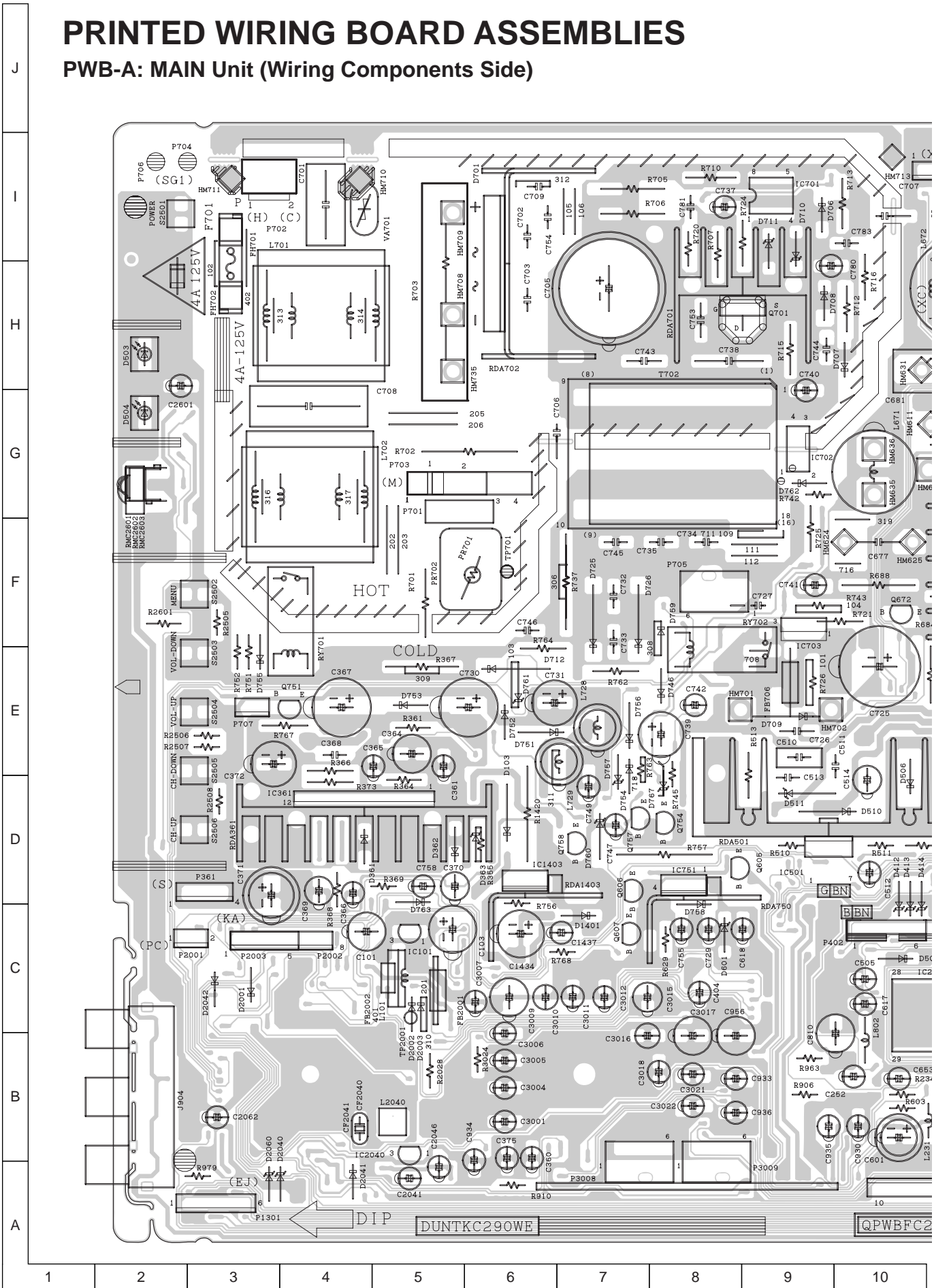
NOTE: 1. THE UNIT OF RESISTANCE "OHM" IS OMITTED
(K=1000 OHMS, M=MEGAOHM) .
2. ALL RESISTORS ARE 1/16 WATT .UNLESS OTHERWISE NOTED .
3. UNIT OF ALL CAPACITORS ARE F WITH PREFIX SYMBOL
(u. P. ETC) .

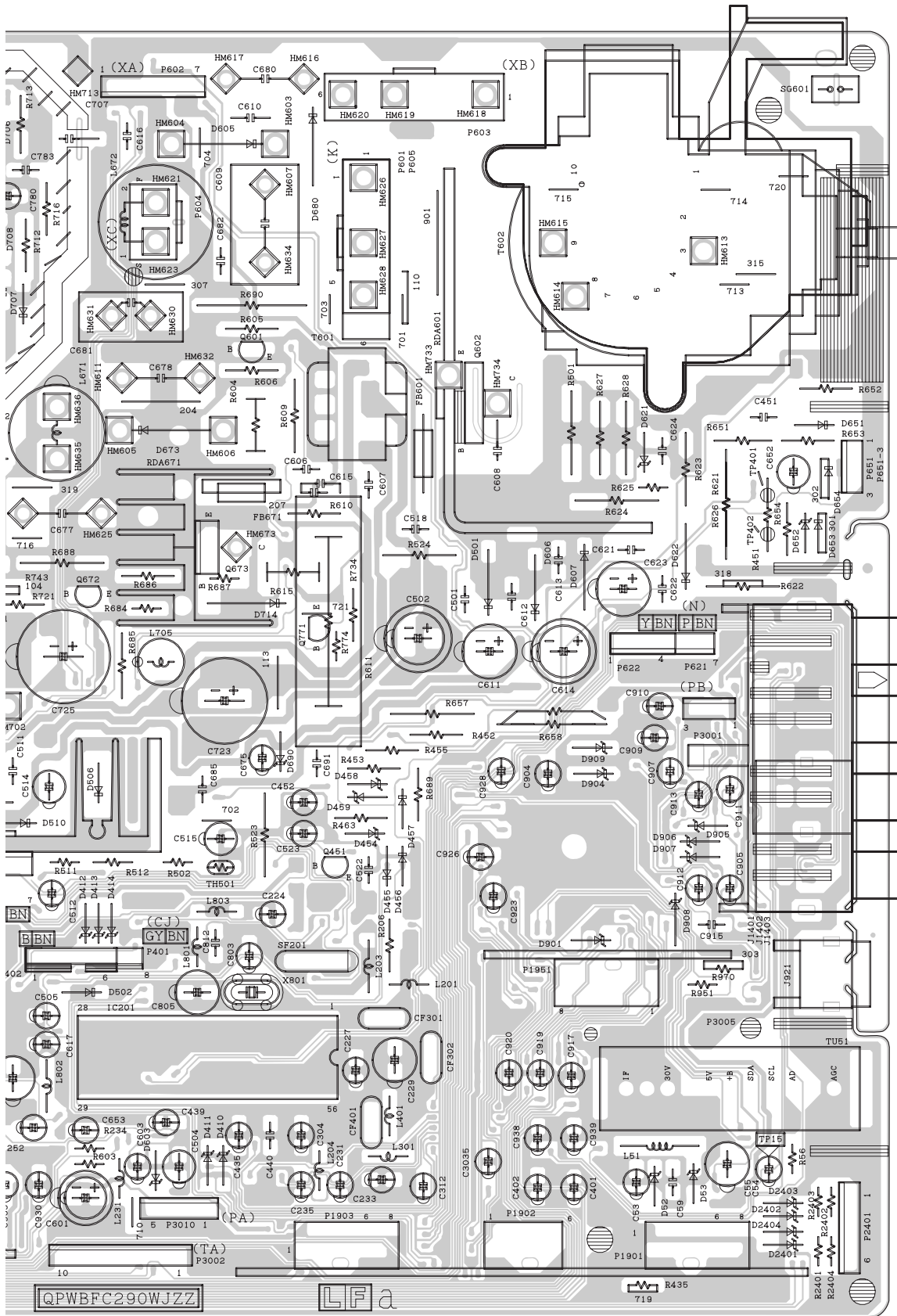


10	11	12	13	14	15	16	17	18	19
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PRINTED WIRING BOARD ASSEMBLIES

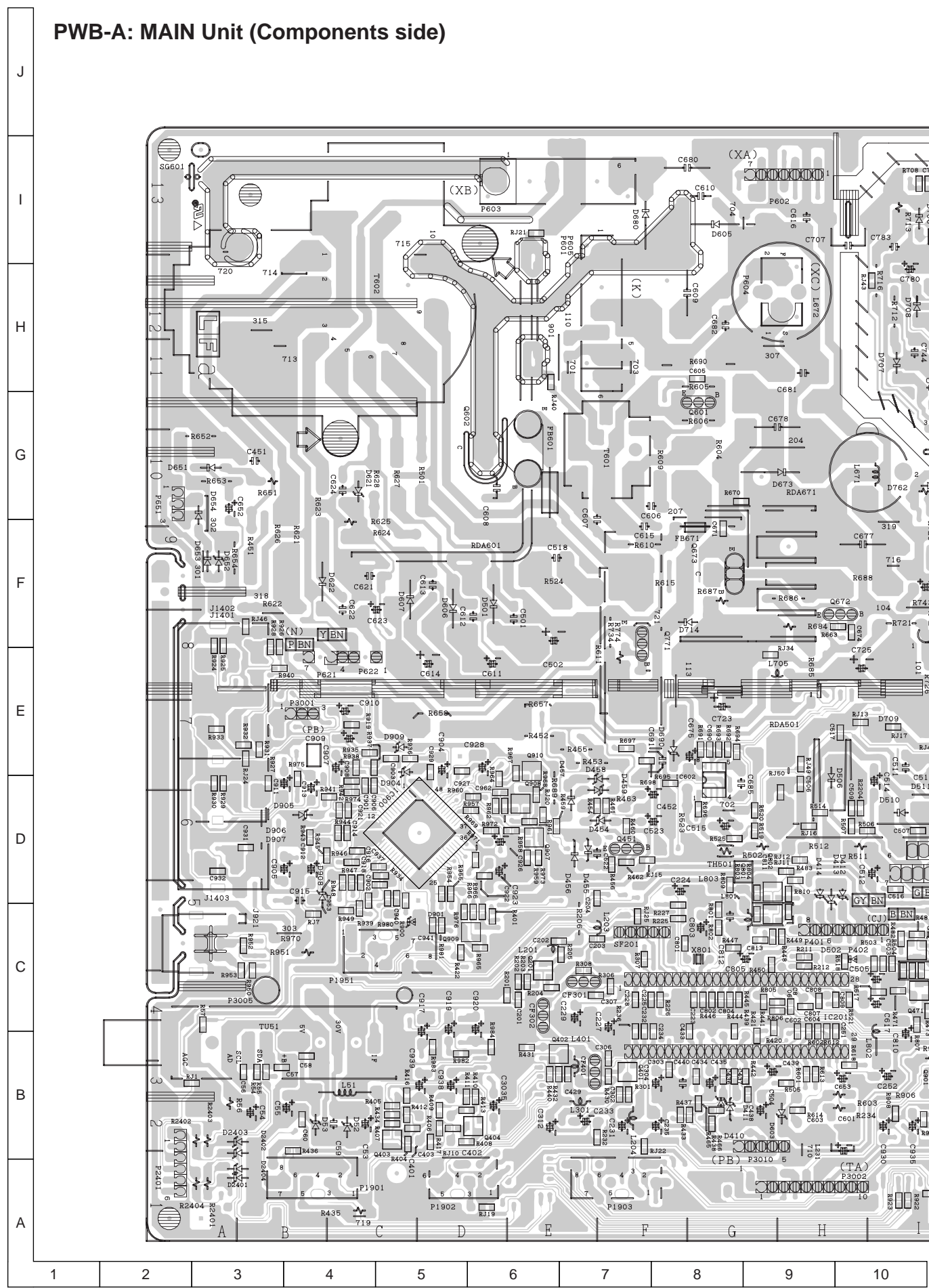
PWB-A: MAIN Unit (Wiring Components Side)

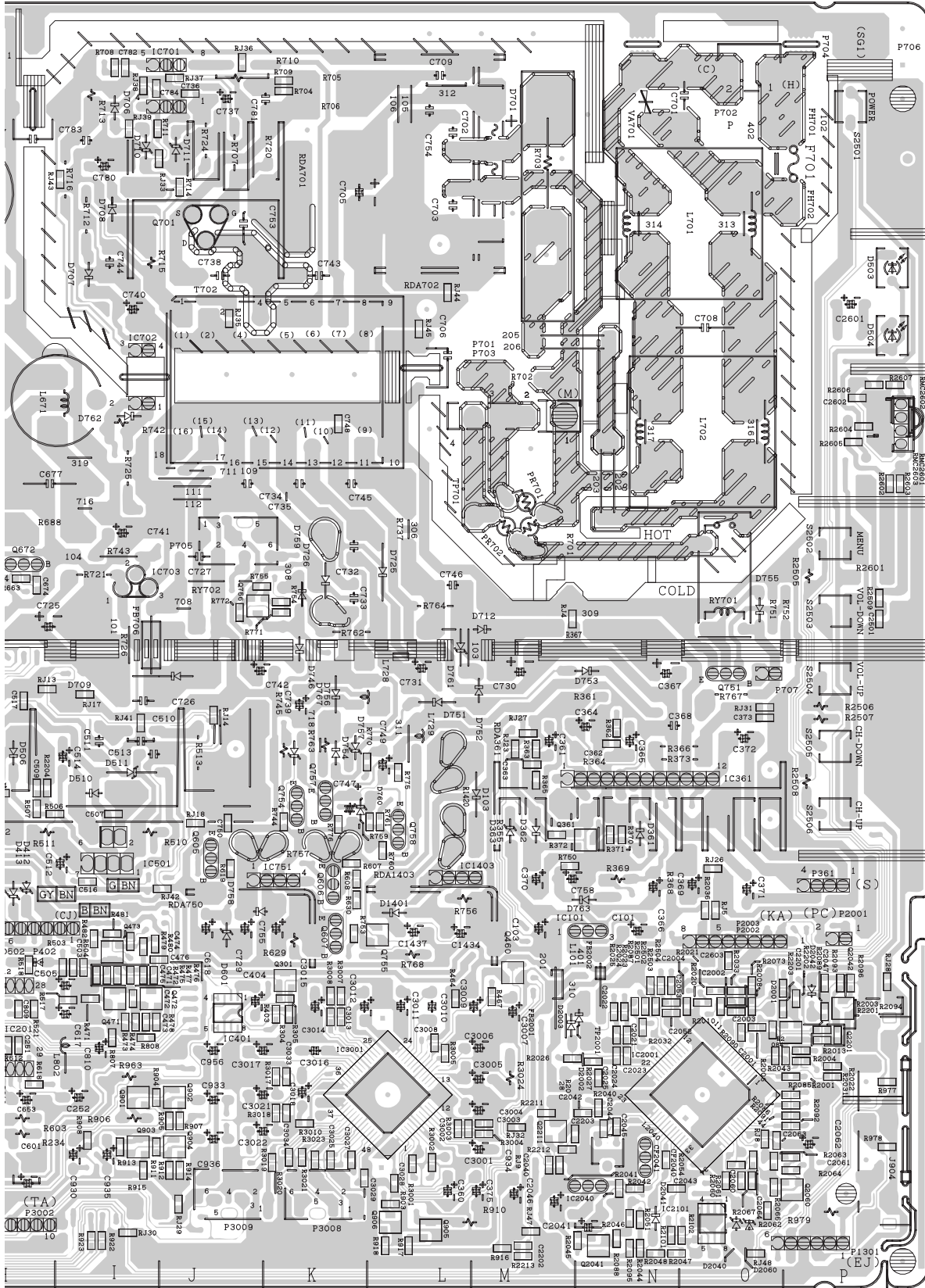




10	11	12	13	14	15	16	17	18	19
----	----	----	----	----	----	----	----	----	----

PWB-A: MAIN Unit (Components side)





10	11	12	13	14	15	16	17	18	19
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J										
I										
H										
G										
F										
E										
D										
C										
B										
A										
1										
2										
3	<p>PWB-B: CRT Unit (Wiring Side)</p>									
4	<p>PWB-C: 3-LINE Y/C Unit (Wiring Side)</p>									
5	<p>PWB-C: 3-LINE Y/C Unit (Chip Parts Side)</p>									

PARTS LIST

PARTS REPLACEMENT

Replacement parts which have these special safety characteristics identified in this manual ; electrical components having such features are identified by Δ and shaded areas in the Replacement Parts Lists and Schematic Diagrams. The use of a substitute replacement part which does not have the same safety characteristic as the factory recommended replacement parts shown in this service manual may create shock, fire or other hazards.

"HOW TO ORDER REPLACEMENT PARTS"

To have your order filled promptly and correctly, please furnish the following informations.

- | | |
|-----------------|----------------|
| 1. MODEL NUMBER | 2. REF. NO. |
| 3. PART NO. | 4. DESCRIPTION |

in **USA**: Contact your nearest SHARP Parts Distributor to order. For location of SHARP Parts Distributor, Please call Toll-Free; 1-800-BE-SHARP

★ MARK: SPARE PARTS-DELIVERY SECTION

▲ MARK: X-RAY RELATED PARTS

Ref. No.	Part No.	★	Description	Code
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PICTURE TUBE

▲▲ V101	VB68QCU770X1E	X	Picture Tube	CE
▲ L703	RCiLG0056PEZZ	X	Degaussing Coil	AK
▲	QEARCA010WJZZ	X	Ground-Part	AD

PRINTED WIRING BOARD ASSEMBLIES (NOT REPLACEMENT ITEM)

PWB-A DUNTKC290WEV0	- MAIN Unit	-
PWB-B DUNTKA527WEW7	- CRT Unit	-
PWB-C DUNTKB573WEV0	- 3-LINE Y/C Unit	-

Ref. No.	Part No.	★	Description	Code
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PWB-A MAIN UNIT DUNTKC290WEV0

TUNER

NOTE: THE PARTS HERES SHOWN ARE SUPPLIED AS AN ASSEMBLY BUT NOT INDEPENDENTLY.

▲ TU51	VTUVT1T5UF202	X	VHF Tuner	AP
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INTEGRATED CIRCUITS

IC101	VHiPQ050ES1-1+	X	PQ050ES1MXP	AB
▲▲ IC201	VHiTB1253AN-1	X	TB1253AN	AP
▲ IC361	VHiAN5277//-1	X	AN5277	AG
▲ IC501	VHiAN15526A-1	X	AN15526A	AE
IC602	VHiBA15218F2EY	X	BA15218F-E2	AB
IC701	VHiTEA1533A-1	X	TEA1533AP	AE
IC702	RH-FXA003WJZZ	X	PC123Y82	AB
▲▲ IC703	VHiSE130N++F	X	SE130N	AD
IC751	VHiPQ09RDA1-1	X	PQ090RDA1SZ	AD
IC900	VHiCXA2089Q-2Y	X	CXA2089Q-6T	AK
IC1403	VHiPQ05RDA1-1	X	PQ050RDA1SZ	AD
IC2001	RH-iXA418WJZZQ	X	TMP88CS38BFG	AN
IC2040	VHiKiA7045A-1+	X	KIA7045AP	AB
IC2101	VHiBR24L16F-1Y	X	BR24L16F-WE2	AC
IC3001	VHiCXA2194Q-1Y	X	CXA2194Q/T6	AP

TRANSISTORS

Q201	VS2SC2735//1EY	X	2SC2735	AB
Q361	VS2SB709AR/-1Y	X	2SB709AR	AB
Q401	VS2SD601AR/-1Y	X	2SD601AR	AB
Q402	VS2SB709AR/-1Y	X	2SB709AR	AB
Q403	VS2SD601AR/-1Y	X	2SD601AR	AB
Q404	VS2SD601AR/-1Y	X	2SD601AR	AB
Q451	VS2SA1266-Y-1+	X	2SA1266-Y	AB
Q460	VSRT1N441C/-1Y	X	RT1N441C	AB
Q471	VS2SD601AR/-1Y	X	2SD601AR	AB
Q472	VS2SD601AR/-1Y	X	2SD601AR	AB
Q473	VS2SD601AR/-1Y	X	2SD601AR	AB
Q601	VS2SC2482//-1+	X	2SC2482	AB
Q602	VS2SD2581++2E	X	2SD2581	AG
Q672	VS2SA1266-Y-1+	X	2SA1266-Y	AB
Q673	VS2SD1830//1E	X	2SD1830	AD
Q701	VSSPA07N603-1	X	SPA07N603	AG
Q751	VS2SC3198-G-1+	X	2SC3198-G	AB
Q754	VS2SC3198-G-1+	X	2SC3198-G	AB
Q755	VS2SD601AR/-1Y	X	2SD601AR	AB
Q756	VS2SD601AR/-1Y	X	2SD601AR	AB
Q757	VS2SC3198-G-1+	X	2SC3198-G	AB
Q758	VS2SA1266-Y-1+	X	2SA1266-Y	AB
Q802	VS2SD601AR/-1Y	X	2SD601AR	AB
Q901	VS2SD601AR/-1Y	X	2SD601AR	AB
Q902	VS2SD601AR/-1Y	X	2SD601AR	AB
Q903	VS2SD601AR/-1Y	X	2SD601AR	AB
Q904	VS2SD601AR/-1Y	X	2SD601AR	AB
Q905	VS2SD601AR/-1Y	X	2SD601AR	AB
Q906	VS2SD601AR/-1Y	X	2SD601AR	AB
Q907	VS2SD601AR/-1Y	X	2SD601AR	AB
Q908	VS2SB709AR/-1Y	X	2SB709AR	AB
Q910	VS2SB709AR/-1Y	X	2SB709AR	AB
Q2041	VS2SB709AR/-1Y	X	2SB709AR	AB
Q2042	VS2SB709AR/-1Y	X	2SB709AR	AB
Q2060	VS2SD601AR/-1Y	X	2SD601AR	AB
Q2201	VS2SD601AR/-1Y	X	2SD601AR	AB
Q2211	VS2SD601AR/-1Y	X	2SD601AR	AB

DIODES

D52	RH-EX0676GEZZY	X	Zener Diode, 32V	AB
D103	RH-DX0441CEZZY	X	DX0441CE	AB
D361	VHD1SS133++-1Y	X	1SS133++	AA
D362	VHD1SS133++-1Y	X	1SS133++	AA

Ref. No.	Part No.	★	Description	Code
D410	RH-EX0611GEZZY	X	Zener Diode, 5.1V	AB
D411	RH-EX0611GEZZY	X	Zener Diode, 5.1V	AB
D412	RH-EX0614GEZZY	X	Zener Diode, 5.6V	AB
D413	RH-EX0614GEZZY	X	Zener Diode, 5.6V	AB
D414	RH-EX0614GEZZY	X	Zener Diode, 5.6V	AB
D454	RH-EX0628GEZZY	X	Zener Diode, 8.2V	AB
D455	VHD1SS133+-1Y	X	1SS133++	AA
D501	RH-DX0302CEZZY	X	DX0302CE	AB
D502	VHD1SS133+-1Y	X	1SS133++	AA
D510	RH-DX0441CEZZY	X	DX0441CE	AB
△ D605	RH-DX0255CEZZ	X	DX0255CE	AD
△ D606	RH-DX0302CEZZY	X	DX0302CE	AB
D607	RH-DX0471CEZZY	X	DX0471CE	AB
D621	RH-EX0631GEZZY	X	Zener Diode, 9.1V	AB
△ D622	RH-DX0131CEZZY	X	DX0131CE	AB
▲ D651	VHD1SS244/-1Y	X	1SS244	AB
▲ D652	RH-EX0641GEZZY	X	Zener Diode, 12V	AB
▲ D653	VHD1SS133+-1Y	X	1SS133++	AA
▲ D654	VHD1SS133+-1Y	X	1SS133++	AA
△ D673	RH-DXA006WJZZ	X	DXA006WJ	AB
△ D701	RH-DX0477CEZZ	X	DX0477CE	AD
D706	VHD1SS133+-1Y	X	1SS133++	AA
D707	VHD1SS244/-1Y	X	1SS244	AB
D708	VHD1SS244/-1Y	X	1SS244	AB
△ D709	RH-DXA006WJZZ	X	DXA006WJ	AB
D710	RH-EX0650GEZZY	X	Zener Diode	AB
D711	RH-EX0655GEZZY	X	Zener Diode	AB
D712	RH-DX0468CEZZ	X	DX0468CE	AB
D725	RH-DX0302CEZZY	X	DX0302CE	AB
D726	RH-DX0461CEZZ	X	DX0461CE	AB
D746	VHD1SS133+-1Y	X	1SS133++	AA
D751	VHD1SS133+-1Y	X	1SS133++	AA
D752	VHD1SS133+-1Y	X	1SS133++	AA
D753	VHD1SS133+-1Y	X	1SS133++	AA
D754	VHD1SS133+-1Y	X	1SS133++	AA
D755	VHD1SS133+-1Y	X	1SS133++	AA
D756	VHD1SS133+-1Y	X	1SS133++	AA
D757	RH-EX0624GEZZY	X	Zener Diode	AB
D759	VHD1SS133+-1Y	X	1SS133++	AA
D761	RH-EX0611GEZZY	X	Zener Diode, 5.1V	AB
D763	VHD1SS133+-1Y	X	1SS133++	AA
D767	RH-EX0637GEZZY	X	Zener Diode	AB
D904	RH-EX0631GEZZY	X	Zener Diode, 9.1V	AB
D905	RH-EX0631GEZZY	X	Zener Diode, 9.1V	AB
D906	RH-EX0631GEZZY	X	Zener Diode, 9.1V	AB
D907	RH-EX0631GEZZY	X	Zener Diode, 9.1V	AB
D908	RH-EX0631GEZZY	X	Zener Diode, 9.1V	AB
D909	RH-EX0631GEZZY	X	Zener Diode, 9.1V	AB
D2001	VHD1SS133+-1Y	X	1SS133++	AA
D2040	RH-EX0619GEZZY	X	Zener Diode, 6.2V	AB
D2041	VHD1SS133+-1Y	X	1SS133++	AA
D2042	VHD1SS133+-1Y	X	1SS133++	AA
D2060	RH-EX0619GEZZY	X	Zener Diode, 6.2V	AB

PACKAGED CIRCUITS

TH501	RH-HZ0004GEZZ+	X	Thermistor	AB
△ VA701	RH-VXA009WJZZ	X	Varistor	AB
△ PR701	RMPTP0092CEZZ	X	Packaged Circuit	AD
X801	RCRSAA010WJZZ	X	Crystal	AC

FILTERS AND COILS

CF302	RFiLC0449CEZZ+	X	Filter	AB
CF401	RFiLC0446CEZZ+	X	Filter	AB
L51	VP-CF100K0000Y	X	Peaking, 10μH	AB
L201	VP-XF1R2K0000Y	X	Peaking, 1.2μH	AB
L203	VP-XF100K0000Y	X	Peaking, 10μH	AB
L204	VP-XF100K0000Y	X	Peaking, 10μH	AB
L231	VP-XF680K0000Y	X	Peaking, 68μH	AB
L301	VP-XF8R2K0000Y	X	Peaking 8.2μH	AB
L401	VP-XF100K0000Y	X	Peaking 10μH	AB
L671	RCiLZ1005CEZZ	X	Coil	AD
L672	RCiLZA058WJZZ	X	Coil	AE
△ L701	RCiLF0345CEZZ	X	Coil	AC
△ L702	RCiLF0345CEZZ	X	Coil	AC
L705	RCiLP0179CEZZ+	X	Coil, 47μH	AB

Ref. No.	Part No.	★	Description	Code
L728	RCiLP0179CEZZ+	X	Coil, 47μH	AB
L729	RCiLP0179CEZZ+	X	Coil, 47μH	AB
L801	VP-XF100K0000Y	X	Peaking 10μH	AB
L802	VP-XF100K0000Y	X	Peaking 10μH	AB
L2040	RCiLBA007WJZZ	X	Oscillation Coil	AB
SF201	RFiLC0405CEZZ	X	Filter	AD

TRANSFORMERS

△ T601	RTRNZ0057PEZZ	X	Transformer	AD
△ T602	RTRNFA040WJZZ	X	H-Volt Transformer	AT
△ T702	RTRNWA071WJZZ	X	Transformer	AG

CAPACITORS

C53	VCEA0A1HW105M+X	1	50V	Electrolytic	AB
C54	VCEA0A1HW475M+X	4.7	50V	Electrolytic	AB
C55	VCEA0A0JW108M+X	1000	6.3V	Electrolytic	AB
C58	VCKYCY1HF103ZY X	0.01	50V	Ceramic	AA
C59	VCKYPA1HF103Z+ X	0.01	50V	Ceramic	AA
C101	VCEA0A0JW108M+X	1000	6.3V	Electrolytic	AB
C103	VCEA0A1CW108M+X	1000	16V	Electrolytic	AB
C201	VCKYCY1HB102KY X	1000p	50V	Ceramic	AA
C202	VCKYCY1HB103KY X	0.01	50V	Ceramic	AA
C203	VCKYCY1HB102KY X	1000p	50V	Ceramic	AA
C223	VCKYCY1CF104ZY X	0.1	16V	Ceramic	AA
C224	VCEA0A1HW474M+X	0.47	50V	Electrolytic	AB
C225	VCKYCY1CF104ZY X	0.1	16V	Ceramic	AA
C227	VCEA0A1HW106M+X	10	50V	Electrolytic	AB
C228	VCKYCY1CF104ZY X	0.1	16V	Ceramic	AA
C229	VCEA0A1CW477M+X	470	16V	Electrolytic	AB
C231	VCEA0A1EW476M+X	47	25V	Electrolytic	AB
C232	VCKYCY1HB222KY X	2200p	50V	Ceramic	AA
C233	VCEA0A1HW474M+X	0.47	50V	Electrolytic	AB
C234	VCKYCY1HB103KY X	0.01	50V	Ceramic	AA
C235	VCEA0A1HW106M+X	10	50V	Electrolytic	AB
C251	VCKYCY1CF104ZY X	0.1	16V	Ceramic	AA
C252	VCEA0A1EW476M+X	47	25V	Electrolytic	AB
C302	VCCCY1HH151JY X	150p	50V	Ceramic	AA
C303	VCCCY1HH330JY X	33p	50V	Ceramic	AA
C304	VCEA0A1HW475M+X	4.7	50V	Electrolytic	AB
C306	VCCCY1HH330JY X	33p	50V	Ceramic	AA
C307	VCKYCY1CF104ZY X	0.1	16V	Ceramic	AA
C312	VCEA0A1EW476M+X	47	25V	Electrolytic	AB
C360	VCEA0A1HW475M+X	4.7	50V	Electrolytic	AB
C361	VCEA0A1HW105M+X	1	50V	Electrolytic	AB
C362	VCKYCY1EB223KY X	0.022	25V	Ceramic	AA
C363	VCKYCY1EB223KY X	0.022	25V	Ceramic	AA
C364	VCEA0A1EW227M+X	220	25V	Electrolytic	AB
C365	VCEA0A1HW105M+X	1	50V	Electrolytic	AB
C366	VCEA0A1HW106M+X	10	50V	Electrolytic	AB
C367	VCEA0A1VW108M+X	1000	35V	Electrolytic	AB
C368	VCKYPA1HF103Z+ X	0.01	50V	Ceramic	AA
C369	VCEA0A1CW227M+X	220	16V	Electrolytic	AB
C370	VCEA0A1CW227M+X	220	16V	Electrolytic	AB
C371	VCEA0A1EW108M+X	1000	25V	Electrolytic	AB
C372	VCEA0A1EW108M+X	1000	25V	Electrolytic	AB
C373	VCKYCY1HB103KY X	0.01	50V	Ceramic	AA
C375	VCEA0A1HW475M+X	4.7	50V	Electrolytic	AB
C401	VCEA0A1HW106M+X	10	50V	Electrolytic	AB
C402	VCEA0A1HW106M+X	10	50V	Electrolytic	AB
C403	VCKYCY1CF104ZY X	0.1	16V	Ceramic	AA
C429	VCKYCY1HB103KY X	0.01	50V	Ceramic	AA
C433	VCKYCY1CF104ZY X	0.1	16V	Ceramic	AA
C434	VCKYCY1CF104ZY X	0.1	16V	Ceramic	AA
C435	VCEA0A1HW105M+X	1	50V	Electrolytic	AB
C436	VCKYCY1CF104ZY X	0.1	16V	Ceramic	AA
C437	VCKYCY1CF104ZY X	0.1	16V	Ceramic	AA
C438	VCKYCY1HB103KY X	0.01	50V	Ceramic	AA
C439	VCEA0A1HW106M+X	10	50V	Electrolytic	AB
C440	VCYFA1HA224J+ X	0.22	50V	Mylar	AB
C451	VCQYTA2AA104K+ X	0.1	100V	Mylar	AB
C452	VCEA0A1EW336M+X	33	25V	Electrolytic	AB
C471	VCKYCY1HB103KY X	0.01	50V	Ceramic	AA
C473	VCCCY1HH331JY X	330p	50V	Ceramic	AB
C474	VCKYCY1HB103KY X	0.01	50V	Ceramic	AA

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
C475	VCKYCY1CF104ZY	X	0.1 16V Ceramic	AA	C755	VCEA0A1EW476M+X	47	25V Electrolytic	AB
C476	VCKYCY1HB103KY	X	0.01 50V Ceramic	AA	C758	VCEA0A1HW475M+X	4.7	50V Electrolytic	AB
C501	VCKYPA2HB102K+	X	1000p 500V Ceramic	AB	C780	VCEA0A1HW226M+X	22	50V Electrolytic	AB
C502	VCEA0A1VW477M+X	470	35V Electrolytic	AB	C781	VCFYFA1HA105J+	X	1 50V	AB
C504	VCEACA1HC474M+X	0.47	50V Electrolytic	AB	C782	VCKYCY1HB102KY	X	1000p 50V Ceramic	AA
C505	VCEA0A1HW474M+X	0.47	50V Electrolytic	AB	C783	VCQYTA1HM103J+	X	0.01 50V Mylar	AB
C506	VCKYCY1HB103KY	X	0.01 50V Ceramic	AA	C784	VCKYCY1HF103ZY	X	0.01 50V Ceramic	AA
C507	VCKYCY1HB103KY	X	0.01 50V Ceramic	AA	C801	VCCCCY1HH110JY	X	11p 50V Ceramic	AA
C510	RC-FZ0272CEZZ+	X	0.39 100V Mylar	AB	C802	VCKYCY1HB222KY	X	2200p 50V Ceramic	AA
C512	VCEA0A1EW476M+X	47	25V Electrolytic	AB	C803	VCEA0A1HW224M+X	0.22	50V Electrolytic	AB
C514	VCEA0A1VW107M+X	100	35V Electrolytic	AB	C804	VCKYCY1CF104ZY	X	0.1 16V Ceramic	AA
C516	VCKYCY1HB472KY	X	4700p 50V Ceramic	AA	C805	VCEA0A0JW108M+	X	1000 6.3V Electrolytic	AB
C517	VCKYCY1HF103ZY	X	0.01 50V Ceramic	AA	C806	VCKYCY1CF104ZY	X	0.1 16V Ceramic	AA
C518	VCQYTA2AA473J+	X	0.047 100V Mylar	AB	C807	VCKYCY1CF104ZY	X	0.1 16V Ceramic	AA
C522	VCFYFA1HA334J+	X	0.33 50V Mylar	AB	C808	VCKYCY1CF104ZY	X	0.1 16V Ceramic	AA
C523	VCEA0A1HW105M+X	1	50V Electrolytic	AB	C809	VCKYCY1CF104ZY	X	0.1 16V Ceramic	AA
C601	VCEA0A1CW477M+X	470	16V Electrolytic	AB	C810	VCEA0A1CW477M+X	470	16V Electrolytic	AB
C602	VCKYCY1CF104ZY	X	0.1 16V Ceramic	AA	C812	VCQYTA1HM104J+	X	0.1 50V Mylar	AB
C603	VCEA0A1HW222KY	X	2.2 50V Electrolytic	AB	C901	VCKYCY1HB103KY	X	0.01 50V Ceramic	AA
C604	VCKYCY1EB223KY	X	0.022 25V Ceramic	AA	C902	VCKYCY1HB103KY	X	0.01 50V Ceramic	AA
C606	VCKYPA2HB561K+	X	560p 500V Ceramic	AB	C903	VCKYCY1HB681KY	X	680p 50V Ceramic	AA
C607	VCKYPA1HB472K+	X	4700p 50V Ceramic	AB	C904	VCEA0A1HW105M+X	1	50V Electrolytic	AB
C608	RC-KZ0033CEZZ	X	150p 2kV Ceramic	AB	C905	VCEA0A1HW105M+X	1	50V Electrolytic	AB
▲▲ C609	VCFPVC3ZA153H	X	0.015 1500V Metallized Polypro Film	AB	C906	VCKYCY1HB681KY	X	680p 50V Ceramic	AA
C611	VCEA0A1EW477M+X	470	25V Electrolytic	AB	C907	VCEA0A1HW105M+X	1	50V Electrolytic	AB
C614	VCEA0A1EW108M+X	1000	25V Electrolytic	AB	C908	VCKYCY1HB103KY	X	0.01 50V Ceramic	AA
C615	VCFYSB2EB823J	X	0.082 250V Mylar	AB	C909	VCEA0A1HW105M+X	1	50V Electrolytic	AB
C616	VCKYPA2HB471K+	X	470p 500V Ceramic	AB	C910	VCEA0A1HW105M+X	1	50V Electrolytic	AB
C617	VCEA0A1HW474M+X	0.47	50V Electrolytic	AB	C911	VCEA0A1HW105M+X	1	50V Electrolytic	AB
C622	VCKYPA2HB102K+	X	1000p 500V Ceramic	AB	C912	VCEA0A1HW105M+X	1	50V Electrolytic	AB
C623	VCEA4A2EN106M+	X	10 250V Electrolytic	AB	C913	VCEA0A1HW105M+X	1	50V Electrolytic	AB
C652	VCEA0A1HW476M+X	47	50V Electrolytic	AB	C914	VCKYCY1HB681KY	X	680p 50V Ceramic	AA
C653	VCEA0A1HW106M+X	10	50V Electrolytic	AB	C915	VCKYPA1HF103Z+	X	0.01 50V Ceramic	AA
C674	VCKYCY1HB391KY	X	390p 50V Ceramic	AA	C916	VCKYCY1HB103KY	X	0.01 50V Ceramic	AA
C675	VCEA0A1HW106M+X	10	50V Electrolytic	AB	C917	VCEA0A1HW105M+X	1	50V Electrolytic	AB
C677	RC-FZ0377CEZZ	X	4.7 50V Mylar	AC	C918	VCKYCY1HB681KY	X	680p 50V Ceramic	AA
▲▲ C678	VCQPCU2GA563J	X	0.056 400V Mylar	AB	C919	VCEA0A1HW105M+X	1	50V Electrolytic	AB
C681	VCFPFA2EB334J	X	0.33 250V Metallized Polypro Film	AB	C920	VCEA0A1HW105M+X	1	50V Electrolytic	AB
C682	VCKYPA2HB102K+	X	1000p 500V Ceramic	AB	C921	VCKYCY1HB681KY	X	680p 50V Ceramic	AA
C685	VCQYTA1HM333J+	X	0.033 50V Mylar	AB	C922	VCKYCY1CF104ZY	X	0.1 16V Ceramic	AA
C691	VCQYTA1HM682J+	X	6800p 50V Mylar	AB	C923	VCEA0A1CW107M+X	100	16V Electrolytic	AB
▲ C701	RC-FZA022WJZZ	X	0.22 AC250V	AB	C926	VCEA0A1EW476M+X	47	25V Electrolytic	AB
C702	RC-KZ0029CEZZ+	X	0.01 AC250V Ceramic	AB	C928	VCEA0A1HW105M+X	1	50V Electrolytic	AB
C703	RC-KZ0029CEZZ+	X	0.01 AC250V Ceramic	AB	C930	VCEA0A1HW475M+X	4.7	50V Electrolytic	AB
▲ C705	RC-EZ0719CEZZ	X	560 200V Electrolytic	AF	C931	VCKYCY1HB183KY	X	0.018 50V Ceramic	AA
▲ C706	RC-KZ0089GEZZA	X	1000p AC250V Ceramic	AB	C932	VCKYCY1HB183KY	X	0.018 50V Ceramic	AA
▲ C707	RC-KZ0092GEZZA	X	3300p AC250V Ceramic	AB	C933	VCEA0A1HW475M+X	4.7	50V Electrolytic	AB
▲ C723	RC-EZ0724CEZZ	X	100 160V Electrolytic	AC	C934	VCEA0A1EW476M+X	47	25V Electrolytic	AB
▲ C725	RC-EZA064WJZZ	X	220 160V Electrolytic	AD	C935	VCEA0A1HW475M+X	4.7	50V Electrolytic	AB
C726	RC-KZ0226CEZZ+	X	560p 2kV Ceramic	AB	C936	VCEA0A1HW475M+X	4.7	50V Electrolytic	AB
C727	RC-KZ0226CEZZ+	X	560p 2kV Ceramic	AB	C937	VCKYCY1HB103KY	X	0.01 50V Ceramic	AA
C729	VCEA0A1HW106M+X	10	50V Electrolytic	AB	C953	VCKYCY1HB681KY	X	680p 50V Ceramic	AA
C730	VCEA4A1VN108M+	X	1000 35V Electrolytic	AC	C956	VCEA0A1CW477M+X	470	16V Electrolytic	AB
C731	RC-EZ0385CEZZ+	X	1000 16V Electrolytic	AB	C1434	VCEA0A1EW476M+X	47	25V Electrolytic	AB
C732	VCKYPA2HB102K+	X	1000p 500V Ceramic	AB	C1437	VCEA0A1EW476M+X	47	25V Electrolytic	AB
C733	VCKYPA2HB102K+	X	1000p 500V Ceramic	AB	C2001	VCCCCY1HH101JY	X	100p 50V Ceramic	AA
C734	VCKYPA2HB471K+	X	470p 500V Ceramic	AB	C2002	VCKYCY1HF103ZY	X	0.01 50V Ceramic	AA
C735	VCKYPA2HB471K+	X	470p 500V Ceramic	AB	C2025	VCCCCY1HH101JY	X	100p 50V Ceramic	AA
C736	VCKYCY1HF103ZY	X	0.01 50V Ceramic	AA	C2040	VCKYCY1CF104ZY	X	0.1 16V Ceramic	AA
C737	VCEA0A1HW226M+X	22	50V Electrolytic	AB	C2041	VCEA0A1HW105M+X	1	50V Electrolytic	AB
C738	VCFPVC3CA102H	X	1000p 1600V Metallized Polypro Film	AB	C2043	VCCCCY1HH331JY	X	330p 50V Ceramic	AB
C739	RC-EZ0385CEZZ+	X	1000 16V Electrolytic	AB	C2044	VCCCCY1HH100DYX	10p	50V Ceramic	AA
C740	VCEA0A1HW476M+X	47	50V Electrolytic	AB	C2046	VCEA0A1EW476M+X	47	25V Electrolytic	AB
C741	VCEA4A2AN105M+	X	1 100V Electrolytic	AB	C2047	VCKYCY1CB473KY	X	0.047 16V Ceramic	AA
C742	VCEA0A1HW226M+X	22	50V Electrolytic	AB	C2060	VCKYCY1CF104ZY	X	0.1 16V Ceramic	AA
C743	RC-KZ0036CEZZ+	X	330p 2kV Ceramic	AB	C2061	VCCCCY1HH101JY	X	100p 50V Ceramic	A
C744	VCKYPA2HB471K+	X	470p 500V Ceramic	AB	C2062	VCEA0A1CW107M+X	100	16V Electrolytic	AB
C745	VCKYPA2HB102K+	X	1000p 500V Ceramic	AB	C2063	VCKYCY1CF104ZY	X	0.1 16V Ceramic	AA
C746	VCKYPA2HB102K+	X	1000p 500V Ceramic	AB	C2064	VCKYCY1CF104ZY	X	0.1 16V Ceramic	AA
C747	VCEA0A1HW475M+X	4.7	50V Electrolytic	AB	C2201	VCKYCY1HB681KY	X	680p 50V Ceramic	AA
C750	VCKYCY1HF103ZY	X	0.01 50V Ceramic	AA	C2202	VCCCCY1HH330JY	X	33p 50V Ceramic	AA
C753	RC-KZ0036CEZZ+	X	330p 2kV Ceramic	AB	C2601	VCEA0A1EW476M+X	47	25V Electrolytic	AB
C754	VCKYPA2HB472K+	X	4700p 500V Ceramic	AB	C2602	VCCCCY1HH101JY	X	100p 50V Ceramic	AA
					C3001	VCEA0A1HW475M+X	4.7	50V Electrolytic	AB
					C3002	VCKYCY1HB562KY	X	5600p 50V Ceramic	AA
					C3003	VCKYCY1EB123KY	X	0.012 25V Ceramic	AA

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
C3004	VCEA0A1HW105M+X	1	50V Electrolytic	AB	R412	VRD-CY1JF101JY	X 100	1/16W Metal Oxide	AA
C3005	VCEA0A1HW475M+X	4.7	50V Electrolytic	AB	R413	VRD-CY1JF101JY	X 100	1/16W Metal Oxide	AA
C3006	VCEA0A1HW106M+X	10	50V Electrolytic	AB	R422	VRD-CY1JF000JY	X 0	1/16W Metal Oxide	AA
C3007	VCEA0A1HW475M+X	4.7	50V Electrolytic	AB	R430	VRD-CY1JF391JY	X 390	1/16W Metal Oxide	AA
C3008	VCKYCY1CF104ZY	X 0.1	16V Ceramic	AA	R431	VRD-CY1JF331JY	X 330	1/16W Metal Oxide	AA
C3009	VCEA0A1CW477M+X	470	16V Electrolytic	AB	R432	VRD-CY1JF102JY	X 1k	1/16W Metal Oxide	AA
C3010	VCE9GA1HW475M+X	4.7	50V Electrolytic	AB	R436	VRD-CY1JF000JY	X 0	1/16W Metal Oxide	AA
C3011	VCEA0A1HW475M+X	4.7	50V Electrolytic	AB	R437	VRD-CY1JF101JY	X 100	1/16W Metal Oxide	AA
C3012	VCEA0A1HW475M+X	4.7	50V Electrolytic	AB	R438	VRD-CY1JF101JY	X 100	1/16W Metal Oxide	AA
C3013	VCKYCY1HB272KY	X 2700p	50V Ceramic	AA	R439	VRD-CY1JF104JY	X 100k	1/16W Metal Oxide	AA
C3014	VCKYCY1CB473KY	X 0.047	16V Ceramic	AA	R441	VRD-CY1JF472JY	X 4.7k	1/16W Metal Oxide	AA
C3015	VCEACA1HC335K+X	X 3.3	50V Electrolytic	AB	R442	VRD-CY1JF101JY	X 100	1/16W Metal Oxide	AA
C3016	VCE9GA1HW475M+X	4.7	50V Electrolytic	AB	R444	VRD-CY1JF332JY	X 3.3k	1/16W Metal Oxide	AA
C3017	VCEACA1CC106K+X	X 10	16V Electrolytic	AB	R445	VRD-CY1JF332JY	X 3.3k	1/16W Metal Oxide	AA
C3018	VCEA0A1HW105M+X	1	50V Electrolytic	AB	R446	VRD-CY1JF332JY	X 3.3k	1/16W Metal Oxide	AA
C3021	VCEA0A1HW475M+X	4.7	50V Electrolytic	AB	R447	VRD-CY1JF101JY	X 100	1/16W Metal Oxide	AA
C3022	VCEA0A1HW475M+X	4.7	50V Electrolytic	AB	R448	VRD-CY1JF101JY	X 100	1/16W Metal Oxide	AA
C3025	VCKYCY1CB473KY	X 0.047	16V Ceramic	AA	R449	VRD-CY1JF101JY	X 100	1/16W Metal Oxide	AA
C3027	VCKYCY1CB473KY	X 0.047	16V Ceramic	AA	R450	VRD-CY1JF101JY	X 100	1/16W Metal Oxide	AA
C3028	VCKYCY1HB682KY	X 6800p	50V Ceramic	AA	R451	VRD-RG3AB103J+	X 10k	1W Metal Oxide	AB
C3029	VCKYCY1HB682KY	X 6800p	50V Ceramic	AA	R452	VRD-RM2HD393JY	X 39k	1/2W Carbon	AA
RESISTORS									
RJ1	VRD-CY1JF000JY	X 0	1/16W Metal Oxide	AA	R453	VRD-RM2HD333JY	X 33k	1/2W Carbon	AA
RJ8	VRD-CY1JF000JY	X 0	1/16W Metal Oxide	AA	R454	VRD-CY1JF471JY	X 470	1/16W Metal Oxide	AA
RJ9	VRD-CY1JF000JY	X 0	1/16W Metal Oxide	AA	R456	VRD-CY1JF103JY	X 10k	1/16W Metal Oxide	AA
RJ14	VRD-CY1JF000JY	X 0	1/16W Metal Oxide	AA	R460	VRD-CY1JF471JY	X 470	1/16W Metal Oxide	AA
RJ16	VRD-CY1JF000JY	X 0	1/16W Metal Oxide	AA	R461	VRD-CY1JF562JY	X 5.6k	1/16W Metal Oxide	AA
RJ19	VRD-CY1JF000JY	X 0	1/16W Metal Oxide	AA	R462	VRD-CY1JF223JY	X 22k	1/16W Metal Oxide	AA
RJ25	VRD-CY1JF000JY	X 0	1/16W Metal Oxide	AA	R463	VRD-RA2EE680JY	X 68	1/4W Carbon	AA
RJ30	VRD-CY1JF000JY	X 0	1/16W Metal Oxide	AA	R464	VRD-CY1JF683JY	X 68k	1/16W Metal Oxide	AA
RJ33	VRD-CY1JF000JY	X 0	1/16W Metal Oxide	AA	R467	VRD-CY1JF123JY	X 12k	1/16W Metal Oxide	AA
RJ36	VRD-CY1JF000JY	X 0	1/16W Metal Oxide	AA	R471	VRD-CY1JF333JY	X 33k	1/16W Metal Oxide	AA
RJ39	VRD-CY1JF000JY	X 0	1/16W Metal Oxide	AA	R472	VRD-CY1JF273JY	X 27k	1/16W Metal Oxide	AA
RJ40	VRD-CY1JF000JY	X 0	1/16W Metal Oxide	AA	R473	VRD-CY1JF471JY	X 470	1/16W Metal Oxide	AA
RJ42	VRD-CY1JF000JY	X 0	1/16W Metal Oxide	AA	R474	VRD-CY1JF681JY	X 680	1/16W Metal Oxide	AA
RJ47	VRD-CY1JF000JY	X 0	1/16W Metal Oxide	AA	R475	VRD-CY1JF102JY	X 1k	1/16W Metal Oxide	AA
RJ48	VRD-CY1JF000JY	X 0	1/16W Metal Oxide	AA	R476	VRD-CY1JF393JY	X 39k	1/16W Metal Oxide	AA
R54	VRD-CY1JF101JY	X 100	1/16W Metal Oxide	AA	R477	VRD-CY1JF182JY	X 1.8k	1/16W Metal Oxide	AA
R55	VRD-CY1JF101JY	X 100	1/16W Metal Oxide	AA	R478	VRD-CY1JF151JY	X 150	1/16W Metal Oxide	AA
R56	VRD-RA2BE823JY	X 82k	1/8W Carbon	AA	R479	VRD-CY1JF473JY	X 47k	1/16W Metal Oxide	AA
R57	VRD-CY1JF473JY	X 47k	1/16W Metal Oxide	AA	R480	VRD-CY1JF223JY	X 22k	1/16W Metal Oxide	AA
R201	VRD-CY1JF151JY	X 150	1/16W Metal Oxide	AA	R481	VRD-CY1JF152JY	X 1.5k	1/16W Metal Oxide	AA
R202	VRD-CY1JF122JY	X 1.2k	1/16W Metal Oxide	AA	R482	VRD-CY1JF100JY	X 10	1/16W Metal Oxide	AA
R203	VRD-CY1JF682JY	X 6.8k	1/16W Metal Oxide	AA	R483	VRD-CY1JF101JY	X 100	1/16W Metal Oxide	AA
R204	VRD-CY1JF270JY	X 27	1/16W Metal Oxide	AA	△ R501	VRN-RL3ABR47J+	X 0.47	1W Metal Film	AB
R205	VRD-CY1JF311JY	X 330	1/16W Metal Oxide	AA	R502	VRN-RA2BK822FY	X 8.2k	1/8W Metal Film	AB
R206	VRD-RA2BE101JY	X 100	1/8W Carbon	AA	R503	VRD-CY1JF105JY	X 1M	1/16W Metal Oxide	AA
R211	VRD-CY1JF221JY	X 220	1/16W Metal Oxide	AA	R504	VRD-CY1JF154JY	X 150k	1/16W Metal Oxide	AA
R212	VRD-CY1JF221JY	X 220	1/16W Metal Oxide	AA	R505	VRD-CY1JF101JY	X 100	1/16W Metal Oxide	AA
R232	VRD-CY1JF471JY	X 470	1/16W Metal Oxide	AA	R510	VRN-RA2BK103FY	X 10k	1/8W Metal Film	AB
R234	VRD-RA2BE271JY	X 270	1/8W Carbon	AA	R511	VRN-RA2BK222FY	X 2.2k	1/8W Metal Film	AB
R236	VRD-CY1JF332JY	X 3.3k	1/16W Metal Oxide	AA	R512	VRN-RA2BK272FY	X 2.7k	1/8W Metal Film	AB
R301	VRD-CY1JF222JY	X 2.2k	1/16W Metal Oxide	AA	R513	VRD-RM2HD1R0JY	X 1	1/2W Carbon	AA
R305	VRD-CY1JF000JY	X 0	1/16W Metal Oxide	AA	R517	VRD-CY1JF104JY	X 100k	1/16W Metal Oxide	AA
R306	VRD-CY1JF102JY	X 1k	1/16W Metal Oxide	AA	R518	VRD-CY1JF102JY	X 1k	1/16W Metal Oxide	AA
R307	VRD-CY1JF101JY	X 100	1/16W Metal Oxide	AA	R521	VRD-CY1JF101JY	X 100	1/16W Metal Oxide	AA
R308	VRD-CY1JF000JY	X 0	1/16W Metal Oxide	AA	△ R523	VRN-RL3DB1R0J+	X 1	2W Metal Film	AB
R355	VRD-RA2BE821JY	X 820	1/8W Carbon	AA	△ R524	VRD-RG3AB391J+	X 390	1W Metal Oxide	AB
R361	VRD-RA2BE224JY	X 220k	1/8W Carbon	AA	R601	VRD-CY1JF101JY	X 100	1/16W Metal Oxide	AA
R362	VRD-CY1JF222JY	X 2.2k	1/16W Metal Oxide	AA	R603	VRD-RA2BE472JY	X 4.7k	1/8W Carbon	AA
R363	VRD-CY1JF222JY	X 2.2k	1/16W Metal Oxide	AA	△ R604	VRD-KA3NG562J	X 5.6k	7W Metal Oxide	AB
R364	VRD-RA2BE152JY	X 1.5k	1/8W Carbon	AA	R605	VRD-RM2HD331JY	X 330	1/2W Carbon	AA
R365	VRD-CY1JF152JY	X 1.5k	1/16W Metal Oxide	AA	R606	VRD-RM2HD331JY	X 330	1/2W Carbon	AA
△ R367	VRN-RL3DB1R2J+	X 1.2	2W Metal Film	AB	△ R609	VRD-RG3AB562J+	X 5.6k	1W Metal Oxide	AB
R368	VRD-RA2BE222JY	X 2.2k	1/8W Carbon	AA	R610	VRD-RM2HD220JY	X 22	1/2W Carbon	AA
R369	VRD-RA2BE822JY	X 8.2k	1/8W Carbon	AA	R612	VRD-CY1JF154JY	X 150k	1/16W Metal Oxide	AA
R371	VRD-CY1JF102JY	X 1k	1/16W Metal Oxide	AA	R613	VRD-CY1JF101JY	X 100	1/16W Metal Oxide	AA
R372	VRD-CY1JF223JY	X 22k	1/16W Metal Oxide	AA	R614	VRD-CY1JF562JY	X 5.6k	1/16W Metal Oxide	AA
R403	VRD-CY1JF000JY	X 0	1/16W Metal Oxide	AA	△ R615	VRD-KA3NG3R3K	X 3.3	7W Metal Oxide	AB
R404	VRD-CY1JF683JY	X 68k	1/16W Metal Oxide	AA	R618	VRD-CY1JF101JY	X 100	1/16W Metal Oxide	AA
R406	VRD-CY1JF473JY	X 47k	1/16W Metal Oxide	AA	△ R621	VRN-RL3AB3R3J+	X 3.3	1W Metal Film	AB
R407	VRD-CY1JF102JY	X 1k	1/16W Metal Oxide	AA	△ R623	VRN-RL3AB4R7J+	X 4.7	1W Metal Film	AB
R408	VRD-CY1JF683JY	X 68k	1/16W Metal Oxide	AA	△ R624	VRD-RG3DB332J+	X 3.3k	2W Metal Oxide	AB
R410	VRD-CY1JF473JY	X 47k	1/16W Metal Oxide	AA	R625	VRD-RA2BE102JY	X 1k	1/8W Carbon	AA
R411	VRD-CY1JF102JY	X 1k	1/16W Metal Oxide	AA	△ R627	VRN-RL3ABR47J+	X 0.47	1W Metal Film	AB
					△ R628	VRN-RL3ABR47J+	X 0.47	1W Metal Film	AB
					▲ R651	VRD-RG2HC270J+	X 27	1/2W Metal Oxide	AB

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
▲△ R652	VRD-RA2EE103GY	X	10k 1/4W	Carbon AA	R954	VRD-CY1JF221JY	X	220 1/16W	Metal Oxide AA
▲△ R653	VRD-RA2EE562GY	X	5.6k 1/4W	Carbon AA	R955	VRD-CY1JF221JY	X	220 1/16W	Metal Oxide AA
△ R658	VRD-RG3DB183J+	X	18k 2W	Metal Oxide AB	R957	VRD-CY1JF101JY	X	100 1/16W	Metal Oxide AA
R663	VRD-CY1JF102JY	X	1k 1/16W	Metal Oxide AA	R958	VRD-CY1JF101JY	X	100 1/16W	Metal Oxide AA
R670	VRD-CY1JF000JY	X	0 1/16W	Metal Oxide AA	R959	VRD-CY1JF103JY	X	10k 1/16W	Metal Oxide AA
R684	VRD-RA2BE472JY	X	4.7k 1/8W	Carbon AA	R960	VRD-CY1JF101JY	X	100 1/16W	Metal Oxide AA
R685	VRD-RA2BE822JY	X	8.2k 1/8W	Carbon AA	R961	VRD-CY1JF102JY	X	1k 1/16W	Metal Oxide AA
R686	VRD-RA2EE332JY	X	3.3k 1/4W	Carbon AA	R962	VRD-CY1JF332FY	X	3.3k 1/16W	Metal Oxide AA
R687	VRD-RA2BE103JY	X	10k 1/8W	Carbon AA	R963	VRD-RA2BE101JY	X	100 1/8W	Carbon AA
△ R688	VRN-RL3DB3R3J+	X	3.3 2W	Metal Film AB	R964	VRD-CY1JF152JY	X	1.5k 1/16W	Metal Oxide AA
R689	VRD-RM2HD824JY	X	820k 1/2W	Carbon AA	R967	VRD-CY1JF682JY	X	6.8k 1/16W	Metal Oxide AA
△ R690	VRD-RG3LB471J+	X	470 3W	Metal Oxide AB	R968	VRD-CY1JF102JY	X	1k 1/16W	Metal Oxide AA
R691	VRD-CY1JF394JY	X	390k 1/16W	Metal Oxide AA	R969	VRD-CY1JF472FY	X	4.7k 1/16W	Metal Oxide AA
R692	VRD-CY1JF223JY	X	22k 1/16W	Metal Oxide AA	R970	VRD-RA2BE6R8JY	X	6.8 1/8W	Carbon AA
R693	VRD-CY1JF683JY	X	68k 1/16W	Metal Oxide AA	R971	VRD-CY1JF101JY	X	100 1/16W	Metal Oxide AA
R694	VRD-CY1JF102JY	X	1k 1/16W	Metal Oxide AA	R972	VRD-CY1JF101JY	X	100 1/16W	Metal Oxide AA
R695	VRD-CY1JF683JY	X	68k 1/16W	Metal Oxide AA	R973	VRD-CY1JF000JY	X	0 1/16W	Metal Oxide AA
R696	VRD-CY1JF000JY	X	0 1/16W	Metal Oxide AA	R974	VRD-CY1JF103JY	X	10k 1/16W	Metal Oxide AA
R697	VRD-CY1JF684JY	X	680k 1/16W	Metal Oxide AA	R975	VRD-CY1JF333JY	X	33k 1/16W	Metal Oxide AA
R698	VRD-CY1JF475JY	X	4.7M 1/16W	Metal Oxide AA	R982	VRD-CY1JF750JY	X	75 1/16W	Metal Oxide AA
△ R701	RR-DZ0049CEZZY	X	3.9W 1/2W	AB	R983	VRD-CY1JF473JY	X	47k 1/16W	Metal Oxide AA
△ R703	VRW-KQ4AC1R2K	X	1.2 10W	Cement AB	R984	VRD-CY1JF473JY	X	47k 1/16W	Metal Oxide AA
△ R705	VRN-RL3DBR18J+	X	0.18 2W	Metal Film AB	△ R1420	VRN-RL3LB2R7J+	X	2.7 3W	Metal Film AB
△ R706	VRN-RL3DBR18J+	X	0.18 2W	Metal Film AB	R2001	VRD-CY1JF102JY	X	1k 1/16W	Metal Oxide AA
△ R707	VRD-RM2HD270JY	X	27 1/2W	Carbon AA	R2004	VRD-CY1JF101JY	X	100 1/16W	Metal Oxide AA
R708	VRD-CY1JF102JY	X	1k 1/16W	Metal Oxide AA	R2008	VRD-CY1JF102JY	X	1k 1/16W	Metal Oxide AA
R709	VRD-CY1JF393JY	X	39k 1/16W	Metal Oxide AA	R2010	VRD-CY1JF102JY	X	1k 1/16W	Metal Oxide AA
△ R710	VRD-RG2HC103J+	X	10k 1/2W	Metal Oxide AB	R2013	VRD-CY1JF682JY	X	6.8k 1/16W	Metal Oxide AA
R711	VRD-CY1JF334JY	X	330k 1/16W	Metal Oxide AA	R2021	VRD-CY1JF334JY	X	330k 1/16W	Metal Oxide AA
R712	VRD-RM2HD100JY	X	10 1/2W	Carbon AA	R2024	VRD-CY1JF472JY	X	4.7k 1/16W	Metal Oxide AA
△ R713	VRD-RG2HC152J+	X	1.5k 1/2W	Metal Oxide AB	R2025	VRD-CY1JF472JY	X	4.7k 1/16W	Metal Oxide AA
R714	VRD-CY1JF332JY	X	3.3k 1/16W	Metal Oxide AA	R2026	VRD-CY1JF472JY	X	4.7k 1/16W	Metal Oxide AA
R715	VRN-RL2HCR56J+	X	0.56 1/2W	Metal Film AB	R2027	VRD-CY1JF102JY	X	1k 1/16W	Metal Oxide AA
R716	VRD-RM2HD100JY	X	10 1/2W	Carbon AA	R2028	VRD-RA2BE102JY	X	1k 1/8W	Carbon AA
R720	VRD-RA2BE473JY	X	47k 1/8W	Carbon AA	R2031	VRD-CY1JF222JY	X	2.2k 1/16W	Metal Oxide AA
R724	VRD-RM2HD101JY	X	100 1/2W	Carbon AA	R2033	VRD-CY1JF334JY	X	330k 1/16W	Metal Oxide AA
R725	VRD-RM2HD821JY	X	820 1/2W	Carbon AA	R2040	VRD-CY1JF102JY	X	1k 1/16W	Metal Oxide AA
R734	VRD-RM2HD124JY	X	120k 1/2W	Carbon AA	R2041	VRD-CY1JF333JY	X	33k 1/16W	Metal Oxide AA
△ R737	VRN-RL3LBR82J+	X	0.82 3W	Metal Film AB	R2042	VRD-CY1JF101JY	X	100 1/16W	Metal Oxide AA
R742	VRD-RA2BE222JY	X	2.2k 1/8W	Carbon AA	R2043	VRD-CY1JF333JY	X	33k 1/16W	Metal Oxide AA
R743	VRD-RM2HD470JY	X	47 1/2W	Carbon AA	R2044	VRD-CY1JF153JY	X	15k 1/16W	Metal Oxide AA
R744	VRD-CY1JF103JY	X	10k 1/16W	Metal Oxide AA	R2045	VRD-CY1JF473JY	X	47k 1/16W	Metal Oxide AA
R745	VRD-RA2BE683JY	X	68k 1/8W	Carbon AA	R2046	VRD-CY1JF101JY	X	100 1/16W	Metal Oxide AA
R750	VRD-CY1JF224JY	X	220k 1/16W	Metal Oxide AA	R2047	VRD-CY1JF221JY	X	220 1/16W	Metal Oxide AA
R751	VRD-RA2BE473JY	X	47k 1/8W	Carbon AA	R2048	VRD-CY1JF562JY	X	5.6k 1/16W	Metal Oxide AA
R752	VRD-RA2BE392JY	X	3.9k 1/8W	Carbon AA	R2051	VRD-CY1JF102JY	X	1k 1/16W	Metal Oxide AA
R753	VRD-CY1JF293JY	X	22k 1/16W	Metal Oxide AA	R2054	VRD-CY1JF102JY	X	1k 1/16W	Metal Oxide AA
R754	VRD-CY1JF222JY	X	2.2k 1/16W	Metal Oxide AA	R2060	VRD-CY1JF221JY	X	220 1/16W	Metal Oxide AA
R755	VRD-CY1JF473JY	X	47k 1/16W	Metal Oxide AA	R2061	VRD-CY1JF562JY	X	5.6k 1/16W	Metal Oxide AA
R756	VRD-RA2BE152JY	X	1.5k 1/8W	Carbon AA	R2062	VRD-CY1JF223JY	X	22k 1/16W	Metal Oxide AA
△ R757	VRN-RL3DB4R7J+	X	4.7 2W	Metal Film AB	R2063	VRD-CY1JF222JY	X	2.2k 1/16W	Metal Oxide AA
R759	VRD-CY1JF103JY	X	10k 1/16W	Metal Oxide AA	R2064	VRD-CY1JF332JY	X	3.3k 1/16W	Metal Oxide AA
R761	VRD-CY1JF332JY	X	3.3k 1/16W	Metal Oxide AA	R2073	VRD-CY1JF000JY	X	0 1/16W	Metal Oxide AA
R762	VRD-RA2EE151JY	X	150 1/4W	Carbon AA	R2084	VRD-CY1JF103JY	X	10k 1/16W	Metal Oxide AA
R764	VRD-RM2HD562JY	X	5.6k 1/2W	Carbon AA	R2086	VRD-CY1JF101JY	X	100 1/16W	Metal Oxide AA
R767	VRD-RM2HD151JY	X	150 1/2W	Carbon AA	R2088	VRD-CY1JF224JY	X	220k 1/16W	Metal Oxide AA
R768	VRD-RA2BE393JY	X	39k 1/8W	Carbon AA	R2089	VRD-CY1JF273JY	X	27k 1/16W	Metal Oxide AA
R775	VRD-CY1JF332JY	X	3.3k 1/16W	Metal Oxide AA	R2090	VRD-CY1JF682JY	X	6.8k 1/16W	Metal Oxide AA
R776	VRD-CY1JF332JY	X	3.3k 1/16W	Metal Oxide AA	R2092	VRD-CY1JF101JY	X	100 1/16W	Metal Oxide AA
R801	VRD-CY1JF333JY	X	33k 1/16W	Metal Oxide AA	R2093	VRD-CY1JF224JY	X	220k 1/16W	Metal Oxide AA
R802	VRD-CY1JF471JY	X	470 1/16W	Metal Oxide AA	R2094	VRD-CY1JF473JY	X	47k 1/16W	Metal Oxide AA
R803	VRD-CY1JF000JY	X	0 1/16W	Metal Oxide AA	R2095	VRD-CY1JF101JY	X	100 1/16W	Metal Oxide AA
R805	VRD-CY1JF682JY	X	6.8k 1/16W	Metal Oxide AA	R2096	VRD-CY1JF101JY	X	100 1/16W	Metal Oxide AA
R806	VRD-CY1JF681JY	X	100 1/16W	Metal Oxide AA	R2101	VRD-CY1JF101JY	X	100 1/16W	Metal Oxide AA
R942	VRD-CY1JF223JY	X	22k 1/16W	Metal Oxide AA	R2102	VRD-CY1JF101JY	X	100 1/16W	Metal Oxide AA
R943	VRD-CY1JF101JY	X	100 1/16W	Metal Oxide AA	R2201	VRD-CY1JF222JY	X	2.2k 1/16W	Metal Oxide AA
R944	VRD-CY1JF223JY	X	22k 1/16W	Metal Oxide AA	R2202	VRD-CY1JF103JY	X	10k 1/16W	Metal Oxide AA
R945	VRD-CY1JF101JY	X	100 1/16W	Metal Oxide AA	R2203	VRD-CY1JF473JY	X	47k 1/16W	Metal Oxide AA
R946	VRD-CY1JF103JY	X	10k 1/16W	Metal Oxide AA	R2211	VRD-CY1JF222JY	X	2.2k 1/16W	Metal Oxide AA
R947	VRD-CY1JF223JY	X	22k 1/16W	Metal Oxide AA	R2212	VRD-CY1JF682JY	X	6.8k 1/16W	Metal Oxide AA
R948	VRD-CY1JF101JY	X	100 1/16W	Metal Oxide AA	R2213	VRD-CY1JF333JY	X	33k 1/16W	Metal Oxide AA
R949	VRD-CY1JF223JY	X	22k 1/16W	Metal Oxide AA	R2401	VRD-RA2BE101JY	X	100 1/8W	Carbon AA
R950	VRD-CY1JF750JY	X	75 1/16W	Metal Oxide AA	R2402	VRD-RA2BE101JY	X	100 1/8W	Carbon AA
R951	VRD-RA2BE680JY	X	68 1/8W	Carbon AA	R2403	VRD-RA2BE101JY	X	100 1/8W	Carbon AA
R952	VRD-CY1JF333JY	X	33k 1/16W	Metal Oxide AA	R2404	VRD-RA2BE101JY	X	100 1/8W	Carbon AA
R953	VRD-CY1JF000JY	X	0 1/16W	Metal Oxide AA	R2501	VRD-CY1JF183JY	X	18k 1/16W	Metal Oxide AA

Ref. No.	Part No.	★	Description	Code
R2502	VRS-CY1JF183JY	X	18k 1/16W Metal Oxide	AA
R2503	VRS-CY1JF103JY	X	10k 1/16W Metal Oxide	AA
R2504	VRS-CY1JF103JY	X	10k 1/16W Metal Oxide	AA
R2505	VRD-RA2BE822JY	X	8.2k 1/8W Carbon	AA
R2506	VRD-RA2BE822JY	X	8.2k 1/8W Carbon	AA
R2507	VRD-RA2BE183JY	X	18k 1/8W Carbon	AA
R2508	VRD-RA2BE183JY	X	18k 1/8W Carbon	AA
R2509	VRS-CY1JF000JY	X	0 1/16W Metal Oxide	AA
R2601	VRD-RA2BE100JY	X	10 1/8W Carbon	AA
R2603	VRS-CY1JF000JY	X	0 1/16W Metal Oxide	AA
R2605	VRS-CY1JF000JY	X	0 1/16W Metal Oxide	AA
R2606	VRS-CY1JF000JY	X	0 1/16W Metal Oxide	AA
R3001	VRS-CY1JF221JY	X	220 1/16W Metal Oxide	AA
R3002	VRS-CY1JF221JY	X	220 1/16W Metal Oxide	AA
R3003	VRS-CY1JF105JY	X	1M 1/16W Metal Oxide	AA
R3004	VRS-CY1JF104JY	X	100k 1/16W Metal Oxide	AA
R3005	VRS-CY1JF623JY	X	62k 1/16W Metal Oxide	AA
R3007	VRS-CY1JF332JY	X	3.3k 1/16W Metal Oxide	AA
R3008	VRS-CY1JF302JY	X	3k 1/16W Metal Oxide	AA
R3010	VRS-CY1JF392JY	X	3.9k 1/16W Metal Oxide	AA
R3017	VRS-CY1JF102JY	X	1k 1/16W Metal Oxide	AA
R3018	VRS-CY1JF102JY	X	1k 1/16W Metal Oxide	AA
R3019	VRS-CY1JF101JY	X	100 1/16W Metal Oxide	AA
R3024	VRD-RA2BE102JY	X	1k 1/8W Carbon	AA

SWITCHES

S2501	QSW-KA003WJZZ+	X	Switch, POWER	AB
S2502	QSW-KA003WJZZ+	X	Switch, MENU	AB
S2503	QSW-KA003WJZZ+	X	Switch, VOL.-DOWN	AB
S2504	QSW-KA003WJZZ+	X	Switch, VOL.-UP	AB
S2505	QSW-KA003WJZZ+	X	Switch, CH-DOWN	AB
S2506	QSW-KA003WJZZ+	X	Switch, CH-UP	AB

BALUNES

FB601	RBLN-0047CEZZY	X	Balun	AB
FB706	RBLN-0037CEZZY	X	Balun	AB
FB2001	RBLN-0037CEZZY	X	Balun	AB

MISCELLANEOUS PARTS

△ ACC701	QACCD012WJPZ	X	AC Cord	AE
△ F701	QFS-B4023CEZZ	X	Fuse, 4A, 125V	AB
FH701	QFSDH1013CEZZ+	X	Fuse Holder	AB
FH702	QFSDH1014CEZZ+	X	Fuse Holder	AB
J904	QJAKGA023WJZZ	X	Jack, Front AV IN JACK	AC
J921	QSOD0456CEZZ	X	Socket, S-Video	AC
J1401	QTANJ1101SEZZ	X	Terminal, AV IN/OUT	AF
P361	QPLGN0461CEZZA	X	Plug, 4pin (S)	AB
P401	QPLGN0861CEZZA	X	Plug, 8pin (CJ)	AB
P605	QPLGN0160FJZZ	X	Plug, 5pin (K)	AB
P621	QPLGN0761CEZZA	X	Plug, 7pin (N)	AB
P651	QPLGN0361CEZZA	X	Plug, 3pin	AB
P702	QPLGN0269GEZZ	X	Plug, 2pin	AB
P703	QPLGN0260CEZZ	X	Plug, 2pin	AB
P2401	QPLGN0661CEZZA	X	Plug .6pin	AB
RDA361	PRDAR0258PEFW	X	Heat Sink for IC361	AC
RDA501	PRDARA039WJFW	X	Heat Sink for IC501	AD
RDA601	PRDARA041WJFW	X	Heat Sink for Q602	AD
RDA671	PRDARA057WJFW	X	Heat Sink for Q673	AC
RDA701	PRDAR0279PEFW	X	Heat Sink for Q701	AB
RDA750	PRDAR5072CEFW	X	Heat Sink for IC751	AB
RDA1403	PRDAR5072CEFW	X	Heat Sink for IC1403	AB
RMC260	RRMCU0222CEZZ	X	Remote Receiver	AD
RY701	RRLYJ0081CEZZ	X	Relay	AD
RY702	RRLYJ0088CEZZ	X	Relay	AC

**DUNTKA527WEW7
PWB-B CRT UNIT**

INTEGRATED CIRCUIT

△ IC850	VHITDA6103Q-1	X	TDA6103Q/N3	AG
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Ref. No.	Part No.	★	Description	Code
TRANSISTORS				
Q850	VS2SA1266-Y-1+	X	2SA1266-Y	AB
Q851	VS2SC3198-G-1+	X	2SC3198-G	AB
Q1504	VS2SC3198-G-1+	X	2SC3198-G	AB
Q1505	VS2SA1266-Y-1+	X	2SA1266-Y	AB
Q1506	VS2SA1964E/-1	X	2SA1964E	AC
Q1507	VS2SC5248E/-1	X	2SC5248E	AC

DIODES

D850	RH-DX0220CEZZY	X	DX0220CE	AB
D851	RH-DX0220CEZZY	X	DX0220CE	AB
D852	RH-DX0220CEZZY	X	DX0220CE	AB
D853	RH-EX0647GEZZY	X	Zener Diode, 15V	AB
D854	VHD1SS119//1Y	X	1SS119	AA
D855	VHD1SS119//1Y	X	1SS119	AA
D862	VHD1SS119//1Y	X	1SS119	AA
D1502	VHD1SS119//1Y	X	1SS119	AA
D1503	VHD1SS119//1Y	X	1SS119	AA
D1506	RH-DX0487CEZZY	X	DX0487CE	AB
D1507	RH-DX0487CEZZY	X	DX0487CE	AB
D1510	VHD1SS119//1Y	X	1SS119	AA

CAPACITORS

C850	VCFYSB2EB823J	X	0.082 250V	AB
C851	RC-KZ018JCEZZ	X	0.01 AC250V Ceramic	AB
C852	VCEA0A1CW107M+X	100	16V Electrolytic	AB
C853	VCFYFA1HA224J+	X	0.22 50V Electrolytic	AB
C854	VCEA0A1CW227M+X	220	16V Electrolytic	AB
C855	VCEA0A2EW106M+X	10	250V Electrolytic	AB
C856	VCEA0A1HW226M+X	22	50V Electrolytic	AB
C1501	VCEA0A1CW476M+X	47	16V Electrolytic	AB
C1506	VCKYPA1HF103Z+	X	0.01 50V Ceramic	AA
C1508	VCKYPA2HB472K+	X	4700p 500V Ceramic	AB
C1509	VCKYPA1HB472K+	X	4700p 50V Ceramic	AB
C1510	VCKYPA1HF103Z+	X	0.01 50V Ceramic	AA
C1511	VCKYPA1HF103Z+	X	0.01 50V Ceramic	AA
C1515	VCEA0A1HW476M+X	47	50V Electrolytic	AB
C1516	VCEA0A1HW476M+X	47	50V Electrolytic	AB
C1517	VCEA0A2AW106M+X	10	100V Electrolytic	AB
C1518	VCCSPA2HL560K+	X	56p 500V Ceramic	AB
C1519	VCEA0A2CW106M+X	10	160V Electrolytic	AB

RESISTORS

RJ1	VRS-CY1JF000JY	X	0 1/16W Metal Oxide	AA
RJ2	VRS-CY1JF000JY	X	0 1/16W Metal Oxide	AA
RJ3	VRS-CY1JF000JY	X	0 1/16W Metal Oxide	AA
RJ4	VRS-CY1JF000JY	X	0 1/16W Metal Oxide	AA
RJ5	VRS-CY1JF000JY	X	0 1/16W Metal Oxide	AA
RJ6	VRS-CY1JF000JY	X	0 1/16W Metal Oxide	AA
RJ7	VRS-CY1JF000JY	X	0 1/16W Metal Oxide	AA
RJ10	VRS-CY1JF000JY	X	0 1/16W Metal Oxide	AA
RJ11	VRS-CY1JF000JY	X	0 1/16W Metal Oxide	AA
RJ12	VRS-CY1JF000JY	X	0 1/16W Metal Oxide	AA
RJ13	VRS-CY1JF000JY	X	0 1/16W Metal Oxide	AA
RJ15	VRS-CY1JF000JY	X	0 1/16W Metal Oxide	AA
RJ20	VRS-CY1JF000JY	X	0 1/16W Metal Oxide	AA
RJ21	VRS-CY1JF000JY	X	0 1/16W Metal Oxide	AA
RJ22	VRS-CY1JF000JY	X	0 1/16W Metal Oxide	AA
RJ23	VRS-CY1JF000JY	X	0 1/16W Metal Oxide	AA
RJ24	VRS-CY1JF000JY	X	0 1/16W Metal Oxide	AA
RJ38	VRS-CY1JF000JY	X	0 1/16W Metal Oxide	AA
RJ45	VRS-CY1JF000JY	X	0 1/16W Metal Oxide	AA
RJ50	VRS-CY1JF000JY	X	0 1/16W Metal Oxide	AA
△ R850	VRS-SV2HC152J	X	1.5k 1/2W Metal Oxide	AB
△ R851	VRS-SV2HC152J	X	1.5k 1/2W Metal Oxide	AB
△ R852	VRS-SV2HC152J	X	1.5k 1/2W Metal Oxide	AB
△ R853	VRS-SV2HC272J	X	2.7k 1/2W Metal Oxide	AB
△ R854	VRS-SV2HC272J	X	2.7k 1/2W Metal Oxide	AB
△ R855	VRS-SV2HC272J	X	2.7k 1/2W Metal Oxide	AB
R856	VRD-RM2HD104JY	X	100k 1/2W Carbon	AA
R857	VRD-RM2HD104JY	X	100k 1/2W Carbon	AA
R858	VRD-RM2HD104JY	X	100k 1/2W Carbon	AA
R861	VRD-RM2HD104JY	X	100k 1/2W Carbon	AA
R862	VRC-MA2HG152KY	X	1.5k 1/2W Solid	AB
R863	VRC-MA2HG152KY	X	1.5k 1/2W Solid	AB
R864	VRC-MA2HG152KY	X	1.5k 1/2W Solid	AB

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code	
△ R867	VRS-SV2HC392J	X	3.9k 1/2W	Metal Oxide	AB	C1414	VCCCCY1HH3R0CYX	3p 50V	Ceramic	AA
△ R868	VRS-SV2HC682J	X	6.8k 1/2W	Metal Oxide	AB	C1415	VCE9GA1CW106M+X	10 16V	Electrolytic	AB
R869	VRD-RA2BE103JY	X	10k 1/8W	Carbon	AA	C1416	VCEA0A1CW477M+X	470 16V	Electrolytic	AB
R870	VRD-RA2BE223JY	X	22k 1/8W	Carbon	AA	C1417	VCKYCY1CF104ZY X	0.1 16V	Ceramic	AA
R871	VRD-RA2BE472JY	X	4.7k 1/8W	Carbon	AA	C1420	VCCCCY1HH270JY X	27p 50V	Ceramic	AA
R872	VRD-RA2EE680JY	X	68 1/4W	Carbon	AA	C1421	VCCCCY1HH120JY X	12p 50V	Ceramic	AA
R873	VRD-RM2HD224JY	X	220k 1/2W	Carbon	AA	C1422	VCCCCY1HH120JY X	12p 50V	Ceramic	AA
R874	VRD-RM2HD104JY	X	100k 1/2W	Carbon	AA	C1423	VCCCCY1HH3R0CYX	3p 50V	Ceramic	AA
R875	VRD-RM2HD104JY	X	100k 1/2W	Carbon	AA	C1424	VCCCCY1HH270JY X	27p 50V	Ceramic	AA
R876	VRD-RM2HD104JY	X	100k 1/2W	Carbon	AA	C1425	VCCCCY1HH100DYX	10p 50V	Ceramic	AA
R877	VRD-RA2BE103JY	X	10k 1/8W	Carbon	AA	C1428	VCKYCY1HF103ZY X	0.01 50V	Ceramic	AA
△ R878	VRS-SV2HC120J	X	12 1/2W	Metal Oxide	AB	C1435	VCKYCY1HF103ZY X	0.01 50V	Ceramic	AA
R1511	VRD-RA2BE101JY	X	100 1/8W	Carbon	AA	C1436	VCKYCY1CF104ZY X	0.1 16V	Ceramic	AA
△ R1513	VRS-VV3DB561J	X	560 2W	Metal Oxide	AB	C1439	VCE9GA1CW106M+X	10 16V	Electrolytic	AB
R1514	VRD-RA2BE100JY	X	10 1/8W	Carbon	AA	C1440	VCEA0A1HW106M+X	10 50V	Electrolytic	AB
R1515	VRD-RA2BE820JY	X	82 1/8W	Carbon	AA	C1441	VCKYCY1HF103ZY X	0.01 50V	Ceramic	AA
R1516	VRD-RA2BE820JY	X	82 1/8W	Carbon	AA	C1442	VCYFA1HA474J+ X	0.47 50V	Ceramic	AB
R1517	VRD-RA2BE122JY	X	1.2k 1/8W	Carbon	AA	C1443	VCKYCY1HF103ZY X	0.01 50V	Ceramic	AA
R1518	VRD-RA2BE683JY	X	68k 1/8W	Carbon	AA	C1444	VCKYCY1HB472KY X	4700p 50V	Ceramic	AA
R1519	VRD-RA2BE123JY	X	12k 1/8W	Carbon	AA	C1445	VCKYCY1HF103ZY X	0.01 50V	Ceramic	AA
R1520	VRD-RA2BE683JY	X	68k 1/8W	Carbon	AA	C1446	VCCCCY1HH181JY X	180p 50V	Ceramic	AB
R1521	VRD-RA2BE122JY	X	1.2k 1/8W	Carbon	AA	C1447	VCKYCY1HF103ZY X	0.01 50V	Ceramic	AA
R1525	VRD-RA2EE560JY	X	56 1/4W	Carbon	AA	C1448	VCKYCY1CF104ZY X	0.1 16V	Ceramic	AA
R1526	VRD-RA2EE560JY	X	56 1/4W	Carbon	AA	C1449	VCKYCY1CF104ZY X	0.1 16V	Ceramic	AA
R1527	VRD-RM2HD1R5JY	X	1.5 1/2W	Carbon	AA	C1451	VCEA0A1CW107M+X	100 16V	Electrolytic	AB
R1528	VRD-RM2HD1R5JY	X	1.5 1/2W	Carbon	AA	C1452	VCKYCY1CF104ZY X	0.1 16V	Ceramic	AA
△ R1529	VRS-VV3DB221J	X	220 2W	Metal Oxide	AB	C1453	VCKYCY1HF103ZY X	0.01 50V	Ceramic	AA
R1530	VRD-RA2BE122JY	X	1.2k 1/8W	Carbon	AA	C1454	VCKYCY1HF103ZY X	0.01 50V	Ceramic	AA
						C1455	VCKYCY1HF103ZY X	0.01 50V	Ceramic	AA
						C1456	VCKYCY1CF104ZY X	0.1 16V	Ceramic	AA
						C1457	VCEA0A1HW106M+X	10 50V	Electrolytic	AB
						C1458	VCEA0A1HW106M+X	10 50V	Electrolytic	AB
						C1460	VCKYCY1HF103ZY X	0.01 50V	Ceramic	AA
						C1470	VCCCCY1HH270JY X	27p 50V	Ceramic	AA
						C1474	VCCCCY1HH150JY X	15p 50V	Ceramic	AA

MISCELLANEOUS PARTS

FB1501	RBLN-0020CEZZ+	X	Balun	AB
P854	QPLGN0741CEZZ	X	Plug, 7pin (N)	AB
P860	QPLGN0841CEZZ	X	Plug, 8pin (CJ)	AB
△ P861	QPLGN0241CEZZ	X	Plug, 2pin (PU1-2)	AB
△ RDA850	PRDAR0248PEFW	X	Heat Sink for IC850	AB
RDA1506	PRDAR5072CEFW	X	Heat Sink for Q1560	AB
RDA1507	PRDAR5072CEFW	X	Heat Sink for Q1507	AB
SC850	QSOCV1011CEZZ	X	Socket 12 CRT SOCKET	AC
CF2040	RCRM-0003CEZZ+	X	Ceramic Vibrator	AC
TP701	QLUGP0102PEZZ	X	Lug	AA

**DUNTKB573WEV0
PWB-C 3-LINE Y/C UNIT****INTEGRATED CIRCUIT**

IC1401	VHITC90A53F-1Y	X	TC90A53F	AP
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TRANSISTORS

Q1401	VS2SD601AR/-1Y	X	2SD601AR	AB
Q1402	VS2SD601AR/-1Y	X	2SD601AR	AB
Q1403	VS2SB709AR/-1Y	X	2SB709AR	AB
Q1404	VS2SD601AR/-1Y	X	2SD601AR	AB
Q1406	VS2SB709AR/-1Y	X	2SB709AR	AB
Q1407	VS2SD601AR/-1Y	X	2SD601AR	AB
Q1408	VS2SB709AR/-1Y	X	2SB709AR	AB

COILS

L1401	VP-XF100K0000Y	X	Peaking, 10μH	AB
L1402	VP-XF100K0000Y	X	Peaking, 10μH	AB
L1406	VP-XF220K0000Y	X	Peaking, 22μH	AB
L1407	VP-XF220K0000Y	X	Peaking, 22μH	AB
L1408	VP-XF100K0000Y	X	Peaking, 10μH	AB
L1410	VP-XF100K0000Y	X	Peaking, 10μH	AB
L1414	VP-XF330K0000Y	X	Peaking, 33μH	AB
L1417	VP-XF220K0000Y	X	Peaking, 22μH	AB

CAPACITORS

C1412	VCEA0A1HW106M+X	10 50V	Electrolytic	AB
C1413	VCKYCY1HF103ZY X	0.01 50V	Ceramic	AA

RESISTORS

R1402	VRS-CY1JF000JY	X	0 1/16W	Metal Oxide	AA
R1405	VRS-CY1JF361JY	X	360 1/16W	Metal Oxide	AA
R1406	VRS-CY1JF102JY	X	1k 1/16W	Metal Oxide	AA
R1407	VRS-CY1JF102JY	X	1k 1/16W	Metal Oxide	AA
R1410	VRS-CY1JF473JY	X	47k 1/16W	Metal Oxide	AA
R1411	VRS-CY1JF223JY	X	22k 1/16W	Metal Oxide	AA
R1412	VRS-CY1JF102JY	X	1k 1/16W	Metal Oxide	AA
R1413	VRS-CY1JF122JY	X	1.2k 1/16W	Metal Oxide	AA
R1414	VRS-CY1JF331JY	X	330 1/16W	Metal Oxide	AA
R1415	VRS-CY1JF391JY	X	390 1/16W	Metal Oxide	AA
R1416	VRS-CY1JF102JY	X	1k 1/16W	Metal Oxide	AA
R1421	VRS-CY1JF471FY	X	470 1/16W	Metal Oxide	AA
R1423	VRS-CY1JF152FY	X	1.5k 1/16W	Metal Oxide	AA
R1426	VRS-CY1JF000JY	X	0 1/16W	Metal Oxide	AA
R1428	VRS-CY1JF332JY	X	3.3k 1/16W	Metal Oxide	AA
R1429	VRS-CY1JF222JY	X	2.2k 1/16W	Metal Oxide	AA
R1430	VRS-CY1JF473JY	X	47k 1/16W	Metal Oxide	AA
R1431	VRS-CY1JF223JY	X	22k 1/16W	Metal Oxide	AA
R1432	VRS-CY1JF102JY	X	1k 1/16W	Metal Oxide	AA
R1433	VRS-CY1JF122JY	X	1.2k 1/16W	Metal Oxide	AA
R1434	VRS-CY1JF331JY	X	330 1/16W	Metal Oxide	AA
R1435	VRS-CY1JF102JY	X	1k 1/16W	Metal Oxide	AA
R1436	VRS-CY1JF331JY	X	330 1/16W	Metal Oxide	AA
R1438	VRS-CY1JF222JY	X	2.2k 1/16W	Metal Oxide	AA
R1456	VRS-CY1JF564JY	X	560k 1/16W	Metal Oxide	AA
R1457	VRS-CY1JF103JY	X	10k 1/16W	Metal Oxide	AA
R1458	VRD-RA2BE103JY	X	10k 1/8W	Carbon	AA
R1459	VRS-CY1JF821JY	X	820 1/16W	Metal Oxide	AA
R1466	VRS-CY1JF103JY	X	10k 1/16W	Metal Oxide	AA
R1467	VRS-CY1JF682JY	X	6.8k 1/16W	Metal Oxide	AA
R1473	VRS-CY1JF102JY	X	1k 1/16W	Metal Oxide	AA
R1475	VRS-CY1JF102JY	X	1k 1/16W	Metal Oxide	AA

MISCELLANEOUS PARTS

FB1401	RBLN-0061TAZZY	X	Balun	AB
P1401	QPLGZ0810CEZZ	X	Plug, 8pin	AB

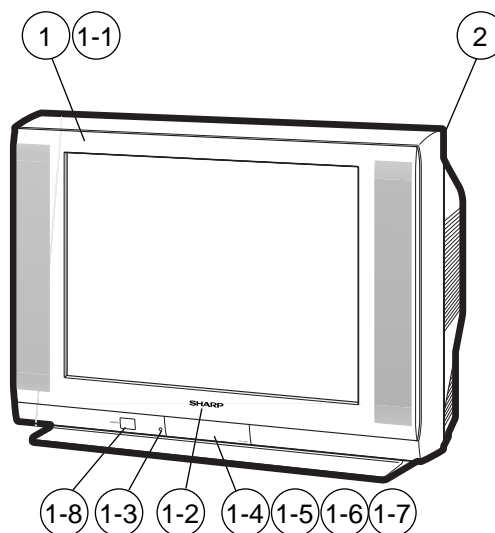
Ref. No.	Part No.	★	Description	Code
MISCELLANEOUS PARTS				
SP1	VSP1206PB708A	X	Speaker (L)	AG
SP2	VSP1206PB708A	X	Speaker (R)	AG
	QCNW-B020WJZZ	X	Connecting Cord	AC
	QCNW-B021WJZZ	X	Connecting Cord	AC
	QCNW-B022WJZZ	X	Connecting Cord	AC

SUPPLIED ACCESSORIES				
RRMCGA219WJSA	X		Infrared Remote Control Unit	AX
TiNS-B022WJZZ	X		Operation Manual (27F640)	
TiNS-B139WJZZ	X		Operation Manual (27F641)	

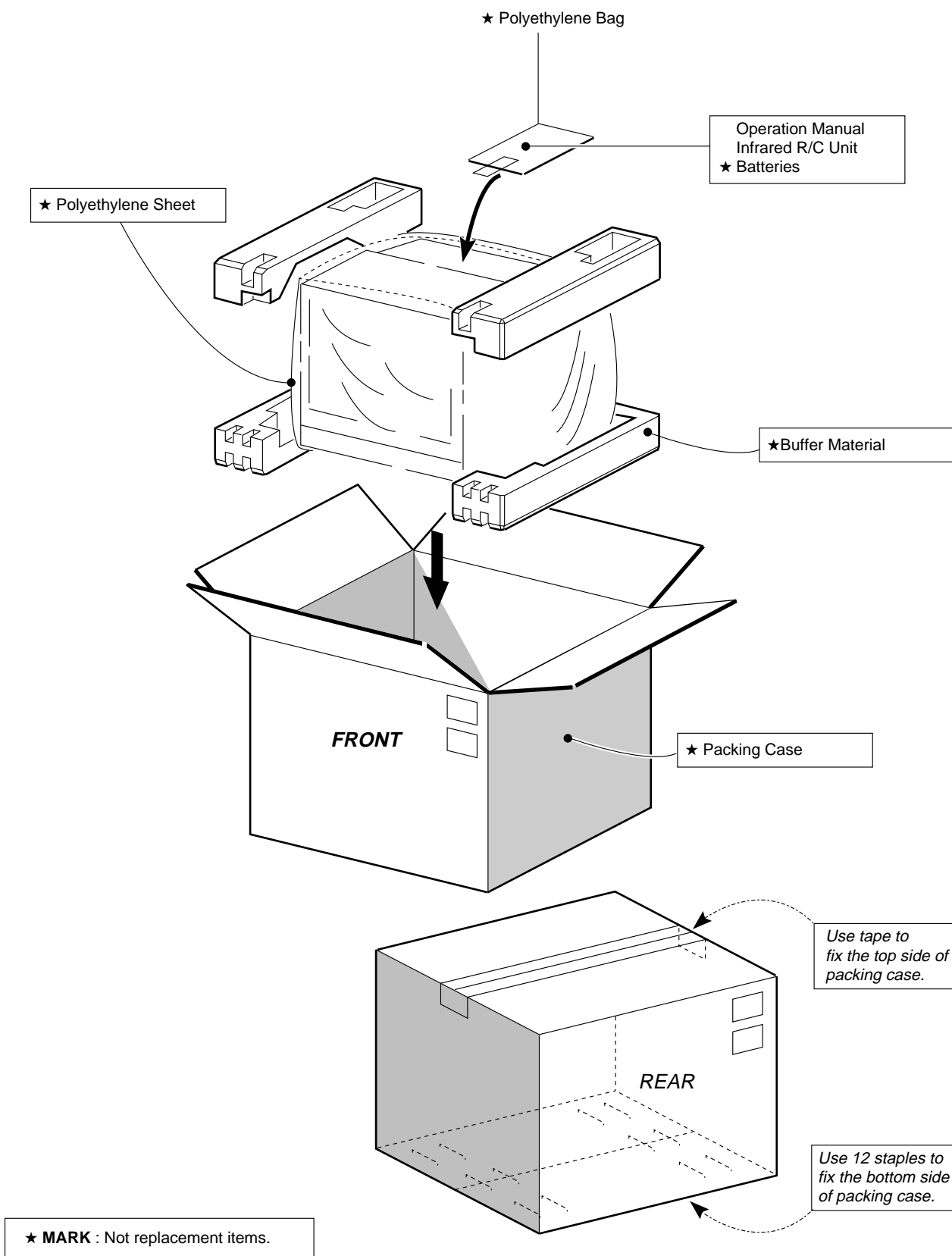
Ref. No.	Part No.	★	Description	Code
PACKING PARTS (NOT REPLACEMENT ITEM)				
	SPAKCB274WJZZ	-	Packing Case (27F640)	-
	SPAKCB212WJZZ	-	Packing Case (27F641)	-
	SPAKP0109GJZZ	-	Wrapping Paper	-
	SPAKXA180WJZZ	-	Buffer Material	-
	SSAKA0101GJZZ	-	Polyethylene Bag	-

CABINET PARTS				
1	CCABAA585WEH0	X	Front Cabinet Ass'y (27F640)	-
1	CCABAA585WEH2	X	Front Cabinet Ass'y (27F641)	-
1-1			<i>Not Available</i>	-
1-2	HBDGB3141CESA	X	SHARP Badge	AD
1-3	GCOVAA282WJKA	X	LED/RC Cover	AC
1-4	GCOVHA017WJKZ	X	Cover	AC
1-5	GDORFA027WJKC	X	Door (27F640)	-
1-5	GDORFA027WJKD	X	Door (27F641)	-
1-6	HiNDPA278WJSA	X	Indication Plate	AC
1-7	MSPRPA012WJFW	X	Spring	AB
1-8	JBTN-A106WJKC	X	Button (27F640)	AE
1-8	JBTN-A106WJKD	X	Button (27F641)	AE
2	GCABBA153WJKA	X	Cabinet	AZ

CABINET PARTS LOCATION



PACKING OF THE SET



SHARP

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MY. DS

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